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THE SHAPES OF CULTURES:
A CASE STUDY OF SOCIAL NETWORK SITES/SERVICES DESIGN IN THE U.S. AND CHINA

by

JIN ZHAO

Under the Direction of Baotong Gu

ABSTRACT

With growing popularity of the use of social network sites/services (SNSs) throughout the world, the global dominance of SNSs designed in the western industrialized countries, especially in the United States, seems to have become an inevitable trend. As internationalization has become a common practice in designing SNSs in the United States, is localization still a viable practice? Does culture still matter in designing SNSs?

This dissertation aims to answer these questions by comparing the user interface (UI) designs of a U.S.-based SNS, Twitter, and a China-based SNS, Sina Weibo, both of which have assumed an identity of a “microblogging” service, a sub category of SNSs. This study employs

the theoretical lens of the theory of technical identity, user-centered website cultural usability studies, and communication and media studies. By comparing the UI designs, or the “form,” of the two microblogging sites/services, I illustrate how the social functions of a technological object as embedded and expressed in the interface designs are preserved or changed as the technological object that has developed a relatively stable identity (as a microblogging site/service) in one culture is transferred between the “home” culture and another. The analysis in this study focuses on design elements relevant to users as members of networks, members of audience, and publishers/broadcasters. The results suggest that the designs carry disparate biases towards modes of communication and social affordances, which indicate a shift of the identity of microblogging service/site across cultures.

INDEX WORDS: Technical communication, Technology transfer, Technical identity, Cultures, Cultural usability, Localization, Social network site/service, SNS, Social media, Website design, Interface, United States, China, Twitter, Weibo

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A CASE STUDY OF SOCIAL NETWORK SITES/SERVICES DESIGN IN THE U.S. AND CHINA

by

JIN ZHAO

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of

Doctor of Philosophy

in the College of Arts and Sciences

Georgia State University

2014

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Jin Zhao

2014

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A CASE STUDY OF SOCIAL NETWORK SITES/SERVICES DESIGN IN THE U.S. AND CHINA

by

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August 2014

DEDICATION

This dissertation is dedicated to my dearest parents, my brother and his wife, my most adorable nephews, and the people of China.

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This dissertation has been a challenging yet rewarding journey. I would never have completed this journey without the help and support of many people whom I owe my most sincere gratitude. I take this opportunity to thank all of those who have accompanied me throughout this journey.

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1 INTRODUCTION

In the last decade, social network sites/services (SNSs) have been widely used across the world, many among the most popular websites in the world such as Facebook, YouTube, Twitter, QQ, Blogspot, LinkedIn, and Wordpress.com ("Top sites," 2012). The wide use of SNSs across various cultures has compelled designers to include internationalization and localization processes in the development and design of SNSs.

Although both are based on the understanding that the user's culture affects her experience with the technology, internationalization and localization have different goals and are achieved through different practices. Internationalization aims to design applications and websites to be usable to users with a diverse cultural background by eliminating highly cultured elements based on the culture where the design takes place, and/or providing users with options, such as languages, time, currencies, and locations, to customize their use. Localization, on the other hand, is "the process of creating or adapting an information product for use in a specific target country or specific target market" (Hoft, 1995, p. 11). As opposed to catering for "universal" users, localization caters to a specific group of users with a shared cultural background or, most likely, in a distinct cultural context by customizing applications or websites to afford usage influenced by cultural norms, values, and conventions.

Most of the top U.S.-based SNSs have internationalization features such as language options and geographically customized content. For instance, YouTube has 61 options for languages or versions of languages (such as Traditional Chinese, Simplified Chinese, and Hong Kong Chinese, or British English and American English). It also has 12 location options based on

countries and regions and a “Worldwide” option, which is an all-inclusive option. These location options enable content display customized for users based on their locations. Twitter and Facebook have language options for users, but they do not have geographically customized content.

The internationalization of the top SNSs has been concurrent with their success in attracting and retaining a wide international user base for these services. For instance, although the U.S. is still the country where Twitter is most used with more than 140 million Twitter accounts, eight countries besides the U.S. have more than 10 million Twitter accounts ("Twitter reaches half a billion accounts," 2012). Saudi Arabia has the highest percentage of Internet users active on Twitter (Smith, 2014). The top four cities with the most public tweets are all non-U.S. cities, Jakarta, Tokyo, London and São Paulo ("Twitter reaches half a billion accounts," 2012). As of October 2012, Facebook ranks number one in traffic in 18 countries outside the U.S. ("Facebook.com," 2012).

At the same time, localization of SNSs is a common practice in many countries. Developers and designers in different parts of the world have designed SNSs that cater for their local users, such as Korea-based Cyworld, Japan-based Mixi, and China-based Weibo. However, except for localized SNSs designed for markets that are not open to foreign countries, such as China-based Weibo, many of the localized SNSs are falling out of competition with the big boys from the U.S. For instance, in 2010, Mixi.jp was Japan’s most popular social network site, and Orkut.co.in, an Indian social network site, ranked the fifth most popular website in India (Vasalou et al., 2010). As of now, Mixi.jp ranks only the 42nd in Japan, far behind U.S.-based YouTube, Facebook, and Twitter (*Top sites in Japan*, 2014). The same fall in popularity

happened to Orkut.co.in as well, whose popularity has fallen to the 1245th in India, while YouTube, Facebook, and Twitter have gained immense popularity (*Top sites in India*, 2014).

The dominance of U.S.-designed SNSs globally, however, does not suggest that SNSs designed in the U.S. with internationalized features necessarily offer better user experience to all users than localized SNSs as some researchers such as Usunier and Roulin would suggest (2010). Based on their evaluation of B2B web design and content across countries, Usunier and Roulin conclude (2010) that websites designed in countries where low-context (LC) communication style is prevalent such as Western European and North American countries are more usable for a “global audience” than those designed in countries where high-context (HC) communication style dominates such as countries in Asia and the Arab world. However, coming from a LC culture, Switzerland, the researchers do not take into consideration their own cultural biases in evaluating these websites. The assumption that there is a unified “global audience” whose members share the same values and aesthetic tastes as theirs is problematic and reflective of an Euro-American centric tendency in web usability research.

One of the factors that contribute to the dominance of SNSs designed in the U.S. across the globe is, arguable, what Rollett et al. (2007, p. 91) call “the network effect by default” of Web 2.0, which explains the phenomenon that the more users use a SNS, the more valuable the SNS is to each user and that once users reach a critical mass, it is hard for people to stay connected without using the SNS. With U.S.’s large online population and English being the dominant language on the Internet, U.S.-designed SNSs can quickly garner a user base at the early stage of their life cycle, which is an advantage that can put them ahead of the competition with SNSs designed for a smaller market because of the network effect.

Despite the popularity of U.S. designed SNSs in other cultures, research to understand how culture influences design and UX will help designers, developers, and entrepreneurs to create potentially better SNSs that users in specific cultures prefer to use. From a user-centered design (UCD) perspective, taking the user's cultural background into consideration needs to be integrated into the design process, for culture and history constitute a context that defines the user in profound ways. In Johnson's (1998) user-centered rhetorical complex of technology, culture and history are part of the context surrounding users on a highly collective level that affect their relationship with the system and designers. According to Johnson (1998), cultural forces are "invisible forces" that "define nearly every human action . . . essential when defining the use of technology," and history is "the reflective aspect of understanding human action, particularly in terms of ethics and responsibility," which is "unique and indispensable" in our attempt to understand technology (p. 39). Addressing cultural differences for specific user groups in design, therefore, is essentially a user-centered approach.

The need for such cultural awareness in the design of technological artifacts in general and SNSs in specific is becoming even more urgent as the global landscape of online population has been changing rapidly. Non-Euro-American countries such as Qatar, Korea, Antigua and Barbuda and Japan have higher percentage of individuals using the Internet than the U.S. in 2011 ("The state of broadband 2012," 2012, p. 88). The growth of non-English-speaking users has outpaced that of the English-speaking users, and it is predicted that at the current growth rate, users who access the Internet in Chinese may outnumber users predominantly using English in 2015 ("The state of broadband 2012," 2012, p. 61). These users will benefit from

having the options of using SNSs designed with structures and features that afford their culturally specific goals, expectations, and activities.

Understanding culture's influence on SNS design and use can potentially help design better SNS products for businesses, governments, and organizations that target culturally specific markets. Emerging as publicly available services for personal use, SNSs have extended to the workplace in recent years. Publicly available services such as Twitter, YouTube, and LinkedIn, are now used by businesses, organizations, governments, and professionals in external and internal communication (Barnes & Andonian, 2011; Briones, Kuch, Liu, & Jin, 2011; Golbeck, Grimes, & Rogers, 2010; McAfee, 2009; Thackeray, Leiger, Smith, & Van Wagenen, 2012; Thoring, 2011). Additionally, enterprise SNSs specifically for businesses to use on their intranets, such as BlueTwit, Yammer and Communote, have emerged for internal communication in the workplace (Ehrlich & Shami, 2010; Riemer & Richter, 2010). For publicly available SNSs that targets a domestic market, and more so, for enterprise SNSs designed for smaller and more culturally defined users employed by businesses or organizations, customizing the systems to support users groups in which members share common cultural experiences will help improve UX and empower users.

China's locally designed SNSs provide a unique opportunity of inquiry that can help us further our understanding of the relationship between culture and the design of communication technologies with a high level of user participation such as SNSs, and how the identities of SNSs as technological objects are appropriated and transformed as they travel across cultures. Because of the Chinese government's blocking of the major SNSs based outside China, such as Twitter, Facebook, and the YouTube, Chinese indigenous SNSs are able to survive

and assume stable identities relatively free from the competition of globally established SNSs. The design of these indigenous SNSs, thus, provides data from a non-U.S. culture that can be used in a comparative study. At the same time, a study that compares the design of SNSs in the United States and in China at this point in time when the two markets are not yet completely integrated also offers a reference for the future studies in the effects of an globalized economy on technology transfer and cultures.

Drawing on technological identity theory and user-centered cultural usability, I compare the user interface (UI) designs of two microblogging SNSs based in the United States and China to further the understanding of culture's impact on SNS design. It is not my intention in this dissertation to characterize the respective cultures where the SNSs examined are designed and used. Rather, I focus on the consequences of the complex multifaceted and ever-changing phenomenon which we call culture.

This dissertation is organized as follows.

CHAPTER 1: INTRODUCTION

CHAPTER 2: CULTURE AND DESIGN: A LITERATURE REVIEW

In this chapter, I situate SNSs design in the context of localization theory and practices, and identify the gaps in the past research in website design and cultural usability. I argue that new research that addresses the particular design patterns of SNSs as Web 2.0 technologies and media platform needs to be done to bridge these gaps, and present the research questions and potential contribution of this study.

CHAPTER 3: A CASE STUDY: MICROBLOGGING SNS IN THE U.S. AND CHINA

In this chapter, I first justify my choice of the United States and China as the two cultures compared. I then offer brief histories of the development of SNSs in the two countries. Finally, I discuss the method of data collection and analysis used in this dissertation.

CHAPTER 4: THE SHAPE OF NETWORKS: USERS, CONNECTIONS, AND COMMUNICATION

In this chapter, I compare and analyze the design aspects and elements of the two SNSs relevant to users as members of the user networks of communication, which are related to user accounts, user connections, network access, and users' control of content reception as audience members and as content sources.

CHAPTER 5: THE SHAPE OF CONTENT: ORGANIZING CONTENT

In this chapter, I trace the design aspects and elements of the two SNSs relevant to users as information seekers or consumers of content, which are related to information architecture (IA) including the organization of content, navigation, and search, and information design on the page, including template design, the design of information elements, and the use of screen space, and compare the differences between the two SNSs.

CHAPTER 6: THE SHAPE OF ACTIONS: POSTING AND MOVING CONTENT

In this chapter, I compare and analyze the design aspects and elements of the two SNSs relevant to users as information makers and movers, which are related to posting and moving content, including the features for posting different types of content, and features that allow users to move content within the networks and beyond.

CHAPTER 7: CONCLUSION AND DISCUSSION

In this chapter, I first summarize the patterns of UI designs of the two SNSs across the three aspects I have examined. Next, I discuss the implications of these patterns and their

implications of culture's impact on the identities of technological objects as they are transferred and localized in another culture other than the one for which they were originally designed and developed. I also discuss the insight the results of this study can shed on the practice of cultural usability research and localization practice. I then offer a discussion about the connections between these design biases and the dominant communication styles and cultural values in the United States and China. Finally, I discuss the limitations of this study and the future research.

2 CULTURE AND DESIGN: A LITERATURE REVIEW

In this chapter, I situate the design of SNSs in the context of localization theory and practices, and identify the aforementioned gaps in the existing research in website design and cultural usability. I argue that new research that addresses the particular design patterns of SNSs as Web 2.0 technologies and media platform needs to be done to bridge these gaps, and present the research questions and potential contribution of this study.

2.1 The technical identity

In his seminal book, *Television: Technology and Cultural Form*, cultural theorist and critic Raymond Williams (Williams, 1974, 2003) argues that technology is “symptomatic” of its social context:

Television, like any other technology, becomes available as an element or a medium in a process of change that is in any case occurring or about to occur. By contrast with pure technological determinism, this view emphasises other causal factors in social change. It then considers particular technologies, or a complex of technologies, as symptoms of change of some other kind. Any particular technology is then as it were a by-product of a social process that is otherwise determined. It only acquires effective status when it is used for purposes which are already contained in this known social process. (Williams, 2003, pp. 5-6)

Published in 1974, Williams’s view is in direct response to his famous contemporary, media theorist Marshall McLuhan’s determinist view of technology. Rather than the “extension

of man” as McLuhan (1994) claims, technology is thought to be a social and historical phenomenon arisen from conditions beyond the material world. Perhaps more radically, others, such as political scientists Frederic J. Fleron (1977) and William Leiss (1977), regard cultural values an integral part of technology that operate on behalf of the dominant power in a society to shape how technological artifacts are developed and produced. These views represent the third stage, the latest one, in the evolution of our understanding of technology in the past three centuries from seeing technology simply as physical artifacts to a complex “sociotechnological phenomenon” whose development and use inherently involve “cultural, social, and psychological factors” (Gu, 2009).

As an essential component of technology, technological artifacts, conceived in the myriad social contexts where they are developed, produced, transferred, used, and eventually substituted by newer technological objects, is an intimate and important way to understand technology as such. In this dissertation, I use Faulkner and Runde’s (2009, 2013) theory of technological identity as a useful paradigm and vocabulary to talk about technological artifacts.

Faulkner and Runde (2013) define a “technological object” as “any object that has one or more uses assigned to it by the members of some human community” (pp. 805-6). Although natural objects can be appropriated by human beings and put to use without being physically modified, most technological objects are human artifacts. Since this dissertation only concerns the technological objects that are human artifacts, the term will be used as such within this dissertation. In addition, because the focus of the present study is technological objects, namely, SNSs, in this dissertation, the terms “technology” and “technological object” are interchangeable if the contexts allow.

According to Faulkner and Runde (2009, 2013), the “identity” of an emerging technological object has a “dual nature”: *function* and *form*. The function, or the “agentive function,” is the use assigned to a certain type of technological objects by members of a certain community in pursuit of their practical interest (Faulkner & Runde, 2009, 2013; Searle, 1995, 1998, 2001). These communities that assign functions to technological objects, depending on the context of design, production, and use, can vary greatly in their members and sizes. As Faulkner and Runde (2009) expound:

agentive functions are generally assigned by social groups whose members’ activities contribute—perhaps consciously but more generally as an unintended consequence of those activities—to sustaining the function of the object concerned. For established technologies—those that have achieved stabilization and closure in the sense of the literature on the social construction of technology—these groups will typically include designers, manufacturers, retailers, and users, as well as third parties who might not be directly implicated in the production, sale, or use of the object but who recognize and assign the same function to it. The size of the group concerned will vary. Where the object is one that is used to the same end in many different localities (e.g., spoons, combs, and chairs), the group will be large, containing many and possibly even all members of society. In other cases the group will be far smaller—for example, where specialized tools are used in circumstances that touch the lives of only a restricted few. (p. 443)

The functions of a technological object, therefore, are socially constructed and specific to the social groups who assign them, or, “community-relative,” and are never intrinsic to the technology object concerned (Faulkner & Runde, 2013; Feenberg, 2000; Searle, 1995). Since the identities of technological objects depend on the functions, they are also necessarily specific to certain social groups—“community-specific” (Wodak, de Cillia, Reisigl, & Liebhart, 1999, 2009). Situating technological objects in a broad cultural context as I have discussed earlier, it is reasonable to argue that, as these social groups consist of members in a certain society, technological objects also carry the cultures where they are designed, developed, and used within their identities.

The form is the “characteristics and capabilities” required to perform the functions concerned (Faulkner & Runde, 2013). Two aspects of the form need to be addressed. First, as Faulkner and Runde argue, the form of an object is not simply its physical or material structure. Rather, it refers to the structure in which an object is “composed of constituent parts that are organized in some way,” and therefore it can be either material or nonmaterial (Faulkner & Runde, 2013, p. 807). Faulkner and Runde (2013) maintain that for a material object, its form refers to its physical components and the ways they are organized; for a nonmaterial object, its form refers to its nonphysical components and arrangement and interaction. To illustrate the nonmaterial objects, the authors use “syntactic entities” that “comprise well-formed expressions in an appropriate language” as an example, in which case, “components are symbols and their arrangement is a logical one—requiring conformity with the rules of the language in which the object is expressed—rather than a spatial one” (2013, p. 807). Computer programs that do not contain a GUI fall into the category of nonmaterial technical objects.

Second, since the details of the form required to perform certain functions may vary considerably in practice, Faulkner and Runde take a “family resemblance” view of technological objects to recognize that “many objects have definite common physical features and capabilities on the basis of which they can be grouped as tokens of the same type, even when there may be no single set of physical features that is shared by all of them” (Faulkner & Runde, 2009, p. 444). This aspect of the form of technological objects allows us to define “types” of technological objects, such as websites, SNSs, and microblogging sites, by describing the common features shared by the members in the group, i.e., individual websites, SNSs, and microblogging sites, which afford the distinct functions assigned to these types of technological objects.

In the study of technology localization, technological identity, i.e., the “coming together” of function and form in a technological object within the community where it is developed and/or used, is a useful concept that provides a useful theoretical paradigm and vocabulary to conceptualize and analyze technological artifacts and how they negotiate their identities in different cultural contexts. By interrogating the identities of technological artifacts and their sustainability and transformations in different cultural contexts, we can get valuable insight in the complex interplay of culture and technology.

2.2 Localization and website localization

Localization refers to the process of adapting technologies and artifacts to a particular user group to meet their needs in their contexts of use. *Website localization* refers to the website design process that aims to design useful and usable websites adapted for a target user group defined by its ethnic/national and sub-group cultures. The process of website localization

in this dissertation should be understood not only as tweaking websites in terms of their “look and feel” to adapt to the preferences of a cultural group, but, more importantly, customizing websites so that they afford user interaction on both the instrumental or functional level and the social level. This understanding of website localization is informed by a body of literature generated from various fields of practice and inquiry.

First, it is informed by the often-cited definitions of localization by the Localization Industry Standard Association (LISA), an international industry organization founded in 1990 (e.g., Sun, 2004, 2006, Hoft, 1995). The latest definition of localization by LISA is “the process of modifying products or services to account for differences in distinct markets” (2010a, par. 2). In this definition, LISA holds a perspective of localization that addresses several issues: linguistic, issues, physical issues, business and cultural issues, and technical issues. LISA’s definition addresses these different aspects of technology and product design. Especially, its view on business and cultural issues reminds us that the cultural adaptation of localization does not only entail functional and visual adaptations such as currencies, local addresses, telephone number formats, colors and graphics, but also other deeper consideration of “political and business issues and local cultural expectations” (LISA, 2010a, par. 11).

The distinctions among these different aspects of localization and their treatments are more specifically explained by technical communication scholar N. L. Hoft (1995). In her book *International Technical Communication*, Hoft (1995) defines *localization* as “the process of creating or adapting an information product for use in a specific target country or specific target market” (p. 11). To Hoft, localization is not a uniformed standard or a monolayered process. Instead, localization has two degrees: *general localization* and *radical localization*. Hoft

explains that “*General localization* accommodates superficial cultural differences like language, currency formats, date, and time formats” (p. 12). *Radical localization*, on the other hand, “incorporates cultural differences that affect the way users think, feel, and act, above and beyond the superficial differences cited previously” as in the case of general localization (p. 12). Examples of these cultural considerations include “learning styles and culturally specific examples” (p. 12). This classification of the localization process into two degrees sheds insights on the different kinds of issues localization must address, and reminds us of the depth and complexity involved in localization. However, the term “degree” implies that these different aspects of localization are put in a hierarchical order, which appears to privilege radical localization and hold a somewhat dismissive view regarding general localization, which, to Hoft, only addresses the “superficial differences” (p. 12).

Some literature distinguishes the localization process from internationalization. LISA regards localization and internationalization as the two technical processes of globalization (LISA, 2010b). According to LISA, internationalization is a process that prepares for product localization. An internationalized product “*by design* [has] all cultural assumptions... removed and any country- or language-specific content is stored externally to the product so that it can be easily adapted” (LISA, 2010b, par. 4). In other words, LISA recognizes that some elements in technology and product design are transcultural and others are more cultural-specific.

Situating internationalization process in technical communication, Hoft (1995) defines internationalization as “the process of re-engineering an information product so that it can be easily localized for export to any country in the world. An internationalized information product consists of two components: core information and international variables” (p. 18-19). This

definition has clear connections to LISA's definition. For instance, Hoft calls the transcultural elements that are implied in LISA's description of internationalization "core information," which she defines as "invariant information that can be reused" (p. 19). At the same time, she calls the cultural-specific elements, "international variables," or "localizable elements," which "identify superficial and deep cultural differences" (p. 19). Like LISA, Hoft regards the goal of localization as adapting localizable elements in designs to culturally varied factors.

Hoft's distinction between "superficial" and "deep" cultural differences certainly mirrors her classification of localization as "general" and "radical." She further gives some examples of "superficial" international variables determined by political, economic, social, religious, educational, linguistic, and technological factors. The "deeper cultural differences," however, are identified in four models, or "cultural heuristics" in L. Beamer's (2000) terms, of culture developed by Edward T. Hall (Hall & Hall, 1990), David A. Victor (1992), Geert Hofstede (2001), and Fons Trompenaars (1994).

These definitions and perspectives of localization are applied in web localization. In *The culturally customized web site*, Singh and Pereira (2005) define "web site globalization," the overall process of developing customized global websites, comprised of two complementary processes, "web site internationalization" and "web site localization" (p. 6-7). Singh and Pereira define website internationalization as "the process through which back-end technologies are used to create modular, extendable, and accessible global web site templates that support front-end customization" (p. 7). Website localization, on the other hand, is "the process of the front-end customization, whereby sites are adapted to meet the needs of specific international target markets" (ibid.). In other words, the goal of website internationalization is to provide

basic structures that are independent of cultural variations, using technologies that are transferable across cultures, whereas the goal of website localization is to design websites appropriate for a specific user group. The focus of the former is the system, hence the goal of standardization. The focus of the latter, on the other hand, is the user, hence the goal of customization.

Whether the goal of design and redesign processes is to internationalize or localize a technology or artifact for a culturally diverse or culturally specific user group, the practice of designing and redesigning of such technology or artifact must link the form to the culturally derived functions. Understanding such a linkage, therefore, is crucial to both localization and internationalization practices.

2.3 A user-centered approach to cultural usability

Usability is a central concern in web design (Krug, 2006; Nielsen & Loranger, 2006). The term “usability” has been used by researchers and practitioners of technology design in various ways, and their understandings and positions do not always agree. However, generally, the term “usability” is used to describe one or more of the following: a quality of technology or products based on users' experience in interactions with the technology and products, a process of user interaction with technology, a mode of research to understand these interactions, and a practice to achieve this quality.

Many have described “usability” as a quality of technology that meets the needs of the users. For instances, the following definitions cited by Barnum (2002) in *Usability Testing and Research*, all focus on a certain quality of the technology:

- International Organization for Standardization: "The extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use.
- J. Nielsen: "The measure of the quality of the user experience when interacting with something—whether a Web site, a traditional software application, or any other device the user can operate in some way or another.
- Duma and Redish: "Usability means that the *people who use the product* can do so *quickly and easily* to accomplish *their own tasks*. (p .6)

To emphasize that this quality has to relate to the user's interaction with technology instead of the technology or product itself, Barnum (2002) describes what is NOT usability: usability is not quality assurance, zero defects, or utility of design features; nor is it intrinsic in products (p. 6).

Taking a rhetorical turn and drawing on activity theory, H. Sun (2006) regards usability as “a mediation process that consists of tool-mediated production and sign-mediated communication. It is both (a) a material interaction with the artifact and its contexts and (b) an interpretation process of this activity” (p. 466). This view situates the interaction between the user and the artifact in a context that is not only material but symbolic, or meaningful. Based on this view, Sun invites a reconfiguration of usability in rich social contexts that goes beyond the narrow circle of the user and technology.

The understandings of usability as a mode of research among researchers are by no means without contradiction and contention. The divergence very often resides between the “scientific” and the “non-scientific” approaches to usability. According to Johnson, Salvo, and

Zoetewey (2007), historically, usability has been considered a “scientific activity—an activity guided by strategic methods and often quantitative measurement systems—that attempts to create verifiable and replicable results” (p. 323). One example from the scientific camp is Gillan and Bias's (2001) notion of “usability science.” The authors state that a “new applied scientific discipline, usability science” has emerged to bridge “the conceptual area between the basic cognitive and behavioral sciences (primarily cognitive and perceptual psychology) and usability engineering” (p. 352).

However, Johnson et al. (2007) critique Gillan and Bias's “usability science” by pointing out that their confinement of usability to a few disciplines in psychology and engineering results in a “narrow range of inquiry” (p. 323). Johnson et al. (2007) argue that technical communicators' interest and work in usability studies have brought “something of a disruption of the dominance of usability as science” in the field of usability studies, and usability has thus also been recognized as “a rhetorical art” (p. 323). Gillan and Bias's notion of “usability science,” according to Johnson et al. (2007), only “seeks to sever communication between the art and their proposed science of usability” (p. 323). Based on their critique of Gillan and Bias's “usability science” and drawing on rhetorical traditions, Johnson et al. define usability in terms of rhetoric, paying close attention to context, and in so doing “seek to return this discussion of usability to the application and use of scientific findings rather than displacing science or emplacing science in application” (p. 327). In other words, to Johnson et al. (2007), the inquiry of usability must consist of both “scientific and replicable” and “nonscientific” research (p. 327).

What Johnson et al. propose, is a “user-centered” rhetorical approach to usability. In his book *User-Centered Technology*, R. R. Johnson (1998) notes that the term “user-centered”

emerged in the vocabulary of technical communication in the context of the development of computer technology (p. 12). Johnson attributes the most “visible” ground breaking efforts to D. Norman and S. Draper in their book, *User-Centered System Design*, published more than a decade earlier than his own. Norman and Draper (1986) have noted in the introduction that their book is “about the design of computers, but from the user’s point of view,” which means that “The emphasis is on people, rather than technology, although the powers and limits of contemporary machines are considered in order to know how to take that next step from today’s limited machines toward more user-centered ones” (p. 2). Working from Norman and Draper’s description and taking a rhetorical turn, Johnson defines user-centered design as an approach to technology where “users are active participants in the design, development, implementation, and maintenance of the technology” (p. 32).

It is with the same concern that Sun (2006) enriches the concept of “affordance” and cultural usability. Affordance is “the perceived and actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used” (Norman, 2002, p. 9). Sun (2002, 2004, 2006) further categorizes *affordances* into three categories:

- *Operational affordances*: properties of a technology that afford nonconscious and automatically performed functions
- *Instrumental affordances*: the properties of a technology that support goal-directed actions in the material context
- *Social affordances*: the properties of a technology that support object-oriented activity and social behaviors in a sociocultural and historical context.

Such an enriched understanding of affordances requires us to broaden the scope of cultural usability, a term “to emphasize the importance of the relationship between culture and usability” in web and computer application design (Badre, 2000, p. 2). In the context of web design, cultural usability used to be narrowly defined to address the visual elements of IU design. For example, Badre (2000) characterizes web cultural usability as follows:

Just as physical cities and countries differ and reflect their inhabitants, so do Web sites. Colors, spatial organization, fonts, shapes, icons and metaphors, geography, language, flags, sounds, and motion contribute to the design and content of a Web page, which directly affects the way that a user interacts with the site. (p. 2)

This narrow view on cultural usability does not account for design elements that support the meaning making of users’ activities in their social and cultural contexts, namely, features, tools, and, particularly in case of SNSs, the network structure and users’ control of content such as privacy and accessibility. A new, broader notion of cultural usability thus needs to take these design elements into account, and as Sun (2004) notes, “With a focus on the mediation of *meanings* and of *activities* in context, the framework of cultural usability regards usability as a diffusing feature across the activity system, incorporates cultural factors from both the immediate context and socio-cultural context into the object of inquiry, and situates culture in the dynamic interactions of the instrumental and social affordances of the technological artifact” (p. 59).

2.4 Understanding culture

2.4.1 Defining culture

Culture is a complex concept that can hardly be defined in a singular form.

Anthropologists Alfred Kroeber and Clyde Kluckhohn (1952), in their book *Culture: A critical review of concepts and definitions*, mapped out the history of the word “culture” in the European tradition, and surveyed the definitions of culture from descriptive, historical, normative, psychological, structural, and genetic perspectives. Based on their survey, the authors described the nature of culture as follows:

Culture consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols, constituting the distinctive achievements of human groups, including their embodiment in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values. (p. 181)

In this description, Kroeber and Kluckhohn broadly attribute culture to “human groups.” Depending on the myriad natures of human groups, the scope of culture can vary greatly. This point is noted by C. Kostelnick’s (1995), who argues that culture is “the shared knowledge and values of any group, which might be defined narrowly within a professional discipline or an organization, or more broadly by a national boundary or ethnic characteristics” (p. 182). He further argues that although the cultures on various levels differ in their scope, they should not be considered “hierarchical or exclusive” (p. 182). In this sense, *cultures* must be spoken of in the plural form, and cultures can permeate, intersect, overlap, and conflict with each other.

The plurality of culture in terms of its scope is reflected in technical and professional communication research, where scholars are interested in culture on different levels. One group of scholars is interested in workplace or corporate cultures and cultures that are shared in professional communities, and their impact on communication and learning (e. g., Belanger, 1999; Delinchant, Riboulet, Gerbaud, Marin, Noel, & Würtz, 2002; Longo, 1995; Puppel & Harrington, 2001). Another group is interested in subgroup cultures defined by groups of people sharing common spheres or activities such as the culture of an online community, or the culture of a documentation community surrounding a how-to book (e. g., St. Amant, 2010; Duin, 1998; Kimball, 2006). Those guided by emancipatory methodologies in their research are often interested in ethnic and minority communities in a society as opposed to the dominant culture (e. g., Williams & James, 2009). Finally, those who study international technical communication are often interested in national cultures and their impact on communication (Barnum & Li, 2006; Lee & Lee, 2009; Sapienza, 2001; Siau, Erickson, & Han, 2010; St. St. Amant, 2001; Wang & Wang, 2009).

In research literature in culture's impact on website design, researchers use national culture, often interchangeable with ethnic culture, as a concept to define user groups and markets, which makes national culture an important variable to consider in web usability (Callahan, 2006; H. Kim, Coyle, & Gould, 2009; McCool, 2006; Nitish Singh & Pereira, 2005). According to Wodak et al. (1999, 2009), national identity "impl[ies] a complex of similar conceptions and perceptual schemata, of similar emotional dispositions and attitudes, and of similar behavioural conventions, which bearers of the 'national identity' share collectively and which they have internalised through socialisation (education, politics, the media, sports or

everyday practices)” (p. 4). These shared aspects of one’s identity constitute what we call “national culture.” The “collectiveness” in this definition is what enables us to define distinct national cultures, and use them as variables in our investigation in technology designed by and for members in them. In this dissertation, using national culture as a variable allows the study to build on the existing literature, providing a starting point for further inquiry into the particularities in the context of design.

It needs to be recognized that using national culture as a core concept in website cultural usability research has its limitations, for cultural identification is a complex and heterogeneous process and national culture is by no means a completely stable or coherent *a priori* entity but a fluid, transforming, and historical concept produced and reproduced discursively (Wodak et al., 1999, 2009). We need to be aware of the hegemonizing impulse of a clearly defined national identity, for it tends to emphasize on the “national uniqueness” and “intra-national uniformity” yet ignore the “intra-national differences” (Wodak et al., 1999, 2009). At the same time, the process of globalization further complicates the very notion of national culture as it, some argue, decreases cultural heterogeneity on the global scale (Hamelink, 1994; Latouche, 2001).

However, despite that “globalization, immigration, and other social processes can potentially initiate a trend toward cultural unification,” as Gevorgyan and Manucharova argue, culture “has great inertia and cultural change is slow” (2009, p. 396). Similarly, others argue that national culture retains a certain degree of collective stability sustained by generations of people who share a common history (Appadurai, 1996; Featherstone, Lash, & Robertson, 1995; Y. Kim, Kasser, & Lee, 2003; Triandis, Bontempo, Villareal, Asai, & Lucca, 1998). This stability

allows national culture to be used as a shortcut in website usability research to identify international users groups.

Further, culture is expressed through not only meanings, but also activities. This understanding is beyond Kostelnick's definition, which implies that culture is constituted with "knowledge" and "value," or meaning, as opposed to actions, behaviors, and practice. In this sense, Johnson's (1998) definition of culture that encompasses "practice" as its component seems more appropriate. He defines culture as "any community that might have common bonds due to context or practice: that is, workplace cultures, classroom cultures, and even electronic cultures such as those emerging from the use of the Internet or other computer networked arrangements" (p. 121). This definition regards culture as something constructed and expressed through the shared practice of its members, thus expands the scope of "culture" from the abstract "knowledge" and "value" to actions and practice. The practice of designing technologies and artifacts, therefore, not only is inherently cultured, but expressions of the culture in which such a practice is situated.

Third, culture has a formative aspect. M. McCool (2006) argues, "[c]ulture provides direction and meaning by ascribing temporal importance, establishing standards for behavior and norms, and overlaying structure by which to conduct our daily lives" (p. 171). In other words, values and cultural conventions regulate the behaviors of the members of a certain society in profound ways. In term of usability, the formative aspect of culture allows us to speak of "cultural constraints" of technologies that can be used in designing usable artifacts (Norman, 2002). Cultural constraints here refer to conventions that determine users' expectations and guide their behaviors. Understanding and effectively using cultural constraints in design can

improve the artifacts' usability by simplifying the design and making the design reflect the user's way of thinking and doing things. On the other hand, as many have pointed out, violating the cultural conventions can result in usability breakdown (Arnold, 1998; Choong, Plocher, & Rau, 2005).

The understanding that culture has normative effects on members of society that subscribes to it serves as a rationale for research in the impact of culture on website design. According to McCool (2006), "culture provides direction and meaning by ascribing temporal importance, establishing standards for behavior and norms, and overlaying structure by which to conduct our daily lives" (p. 171). In Hofstede's (1980) terms, culture is the "software of mind," which shapes how human beings select, interpret, process, and evaluate information and translate it into (in)action. This leads us to a discussion and critique of Hofstede's and Hall's cultural contexting and cultural dimensions theories.

2.4.2 Cultural contexting and cultural dimensions

Hall's (1976) cultural contexting theory and Hofstede's (Hofstede, 2001; 2010) theory of cultural dimensions are two widely used theoretical paradigms in technical and business communication. Hunsinger (2006) calls the "cultural heuristics" approach, which "[w]orking from catalogues of ethnographic data, [. . .] identifies important dimensions of culture and then rates particular cultures for each dimension, with the goal of developing workable descriptions that practitioners might find helpful in cross-cultural communication" (p. 32). In other words, the cultural heuristic approach relies on cultural paradigms to provide a framework, although sometimes controversially, to dissect cultures whose complexities pose a great challenge in cultural usability studies.

In his cultural contexting theory, Hall (1976, 1983) classifies cultures according to how context is treated in communication. In *Beyond Culture*, Hall (1976) characterizes cultures in two broad groups according to the dominant communication styles, the high-context (HC) and low-context (LC) cultures. He (1976) defines communication context as “the amount of information that is in a given communication as a function of the context in which it occurs” (p. 91). According to Hall, in HC communication, “most of the information is either in the physical context or internalized in the person, while very little is in the coded, explicit, transmitted part of the message,” while in LC communication, “the mass of the information is vested in the explicit code” (p. 91). In other words, LC cultures prefer communication that is direct, explicit, and less dependent on the contexts, and HC cultures prefer communication that is indirect, implicit, and deeply embedded in the contexts.

Although the communicative situations in cultures are a mixture of HC and LC communication, particular cultures display inclination to one or the other communication styles. Hence Hall’s use of the terms such as HC and LC cultures. Comparing the cultures of the U.S., Japan, and France, especially as they are manifested in law, Hall (1976) identified some characteristics of HC and LC cultures. For instance, in HC cultures, loyalty is highly valued and expected from established relationships, insiders and outsiders are more distinctively separated, and people expect more of others (p. 113).

In *The Dance of Life*, Hall (1983) identifies another aspect of the HC and LC cultural distinction with regard to how time relates to human activities. Hall distinguished two approaches to time and the temporal order of events, monochronic time and polychronic time. Monochronic time of the North European system (LC), according to Hall, is characterized with

the linear scheduling of events, or “doing one thing at a time” (p. 43). The polychronic time of cultures such as Latin America and Arab world (HC) is characterized with nonlinear scheduling of events, or “doing many things at once” (p. 43).

Hofstede’s cultural dimensions emerged in the 1980 (1980, 2001). In the 1970s, Hofstede (1980) conducted a study surveying IBM's employees from 53 countries and regions to investigate how values held by the employees differ across cultures and how their cultural backgrounds influenced their behaviors. He identified four cultural dimensions based on the cultural values of these countries and regions: *power distance*, *individualism* versus *collectivism*, *masculinity* versus *femininity*, and *uncertainty avoidance*. Later, Hofstede added two other dimensions to the list: *long-term* versus *short-term orientations* (2010) and *indulgence* versus *restraint* (2001). Hofstede defined the dimensions as below:

- *Power distance* is the extent to which the less powerful members of organizations and institutions accept and expect that power is distributed unequally. The basic problem involved is the degree of human inequality that underlines the functioning of each particular society (Hofstede, 2001, p. xix).
- *Uncertainty avoidance* is the extent to which a culture programs its members to feel either uncomfortable or comfortable in unstructured situations. Unstructured situations are novel, unknown, surprising, different from usual. The basic problem involved is the degree to which a society tries to control the uncontrollable. (pp. xix-xx)

- *Individualism* on the other side versus its opposite, *collectivism*, is the degree to which individuals are supposed to look after themselves or remain integrated into groups, usually around the family. (p. xx)
- *Masculinity* versus its opposite, *femininity*, refers to the distribution of emotional roles between the genders, which is another fundamental problem for any society to which a range of solutions are found; it opposes “tough” masculine to “tender” feminine societies. (p. xx)
- *Long-term* versus *short-term orientation* refers to the extent to which a culture programs its members to accept delayed gratification of their material, social, and emotional needs. (p. xx)
- *Indulgence* stands for a tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun. Its opposite pole, *restraint*, reflects a conviction that such gratification needs to be curbed and regulated by strict social norms. (2010, p. 281)

According to Hofstede (2001), each country can be positioned between the poles in each dimension. As a whole, the system of cultural dimensions offers both a theoretical paradigm and a methodological tool to operationalize culture.

Hall's and Hofstede's dimensions are not exclusive categories. Instead, “they overlap and correlate with each other to a certain degree” (Callahan, 2006, p. 243). Hofstede (2001) has pointed out that his dimension of individualism versus collectivism is very similar to Hall's conceptualization of LC versus HC cultures. In application, Hall's contextualizing cultural theory has what Pflug calls the “explanatory power” (2011, p. 131), in that it provides a way to

conceptualize cultures and a vocabulary to talk about cultural differences in broad terms. Hofstede's cultural dimensions, on the other hand, offer a systematic framework to dissect cultures and a tool with which researchers can examine and interpret the effects of specific dimensions of culture on UX. Because cultural dimensions are statistically independent from each other, in their application, researchers can select dimensions relevant to their inquiry (Hofstede, 2001).

Cultural contexting and the cultural dimension theory have been widely used in cross-cultural technical communication research. McCool (2006), for instance, has argued that overlaying cultural dimensions and information structures can improve website UX. Users from HC and LC cultures differ in online communication patterns (Koeszegi, Vetschera, & Kersten, 2004), preference of media and tools (Richrdson & Smith, 2007), purposes and motives of using communication technologies (Yoojung Kim, Sohn, & Choi, 2011; Pflug, 2011), and visual strategies (Würtz, 2006).

It is important to note, nevertheless, that the cultural contexting and cultural dimension theories have their limitations. The tendency of "operationalism," especially in Hofstede's formulation of cultural dimensions, can become a "methodological dogma," in Geertz's (Geertz, 1973) words, that tends to reduce culture to charts and numbers. Using cultural dimensions as heuristics out of the specific context can lead to oversimplification, essentialization, and even ethnocentrism (Hunsinger, 2006, p. 31).

In an attempt to qualify the cultural dimensions theory, Hofstede et al. (2010) have stressed their awareness of the distinction between nations and societies. While societies are "historically, organically developed forms of social organization," they write, nations are

political units that emerged in recent human history (p. 20-21). Strictly speaking, Hofstede et al. write, the concept of culture applies to societies rather than nations, but they also argue that nations do develop a consistent and integrated “whole” (p. 21). The authors caution researchers to use nationality “with care” as a criterion to classify culture (p. 21). While recognizing the complexities in culture complicated by geography, ethnicity, religion, gender, generation, class, and organizational culture, the authors also argue that often being “the only feasible criterion for classification,” nationality is used for “expediency” in research (p.21).

In this dissertation, I use cultural contexting and cultural dimensions as a tool that helps interpret the relationship of culture to the patterns of design and use. Acknowledging the limitation of Hall’s and Hofstede’s theorization of cultural differences, I do not attempt to offer a comprehensive account of the two cultures and all the nuances that will affect the designs of the two SNSs and users’ interaction with them. Neither is it within the scope of this dissertation to interrogate cultural identification on the individual level. Rather, taking a cultural heuristic approach, I attempt to investigate aspects of two cultures and whether and how they are reflected in the design of SNSs. Ultimately, the goal of this dissertation is to work toward an “understanding” that will inform the “praxis” of the design activity within the context of the two cultures examined in the study (Sullivan & Porter, 2004, p. 312) instead of theorizing cultural usability or localization of SNSs. A cultural heuristic approach, thus, is instrumental in achieving this goal in spite of its limitations.

2.5 SNSs, Web 2.0, and mass media

Social network sites or social network services (SNSs) are a subset of technologies known as “social media”—or “social mediating technologies” (Hansen, Schneiderman, & Smith,

2011). Social media can be defined as “a set of online tools that are designed for and centered around social interaction” that are built with Web 2.0 technology (p. 30) a “catchall phrase” that covers a wide range of tools and services, such as blogging, microblogging, social sharing services, text messaging, forums, collaborative editing tools, virtual worlds, and social network services (Bertot, Jaeger, & Hansen, 2012, p. 30).

As a subset of social media, SNSs share a set of common features and functions among them, which are distinct from other social media. Boyd and Ellison (2007) define SNSs as technological websites or web-based services that “allow individuals to (1) construct a public or semi-public profile within a bounded system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system” (p. 211). Such a technical identity can be assigned to a wide range of websites and services including, for instances, networks that emphasize on social connections such as Facebook, Myspace, and Google+, websites focusing on a particular form of content sharing such as Flickr (photos), YouTube (videos), Vimeo (videos), Pinterest (photos), and Instagram (photos), microblogging websites such as Twitter, Sina Weibo, and Tumblr, and websites with other primary functions such as Delicious (bookmarking), Goodreads (books reading).

By describing the most basic characteristics of the physical forms of SNSs that distinguish them from other forms of CMC technology, boyd and Ellison delineate a boundary for the myriad products and services that can be called SNSs. These products and services, however, as the authors point out, vary in terms of the degree of privacy control by the users, the mechanism of forming connections—two-directional or one-directional connection, for

instance—commenting and messaging functions, and other functions and features, i.e., form, that support these functions.

2.5.1 SNSs and Web 2.0

Web 2.0 technologies support enhanced, if not completely different, web experience for users by, for instance, “combining instant publishing, interactivity, social network, Web services, communal tagging and rating, and content management” (2001). Indeed, in Web 2.0 environment, websites and web applications are increasingly integrated to provide tools to accomplish their multitude of goals, such as publishing (e. g., blogs), knowledge sharing (e. g., Wikipedia), broadcasting (e. g., podcasts), social networking (e. g., Facebook, Twitter), and social bookmarking or folksnomies (e. g., Delicious) (Thacker & Dayton, 2008, p. 384). As Henry Jenkins (2006) points out, Web 2.0 is a space of convergence that blends and remixes cultures, technologies, media, and discourses (Jenkins, 2006).

Built for the Social Web, SNSs are characterized with the Web 2.0 design patterns that distinguish them from websites that are “unilateral channels of communication” (Potts & Jones, 2011). According to Rollett et al. (2007), Web 2.0 design patterns include the following:

- *The long tail* – The majority of the web is made up of a huge number of specialized topics and small communities rather than the “top sellers” and the most popular topic.
- *Data is the next “Intel inside”* – Data are of greater value than the interface.
- *Users add value* – Users are integrated into and add value to the content creation process.

- *Network effect by default* – The users, both creators and consumers of content, generate data (content and use data) for the network whose value increases as the number of users grows.
- *Some rights reserved* – An adaptable and flexible set of rights has been created to accommodate users' needs to share content they create.
- *Perpetual beta* – Software is continuously developed and updated to meet users' needs.
- *Cooperate, do not control* – Design must respect users' control of data, and their desire to be open to the outside, enabling them to mash up services.
- *Software above the level of single device* – Design should allow users to use different devices by providing software above the level of a single device.

These patterns suggest that the user is positioned in the center of the design. Web 2.0 is also linked to the deep and extensive user participation, which is not only icing on the cake but essential to the very functioning of many websites such as community-based Delicious.com and Facebook that rely on users' participation (Hoegg, Martignoni, Meckel, & Stanoevska-Slabeva, 2006). Users take on a range of roles simultaneously in their interaction with technologies. As Dilger (2010) has pointed out, "Web 2.0 style understands that both "reader" and "writer" are in many senses plural, layered, and complex" (p. 19).

Unlike websites that offer only sender-prepared content, SNSs offer platforms and tools that afford users to generate, receive, move, and consume content across devices ranging from computers and tablets, to smartphones and eReaders. The users of SNSs, as in the case of Web 2.0, are "integrated into the content creation process, thereby adding value to that process and

its results” (2007). At the same time, the various degrees of users’ control of accessibility of their content and privacy have become a crucial concern for the design of SNSs.

Users’ role as consumers of content is of more critical importance for SNSs than that of pre-Web 2.0 websites as well, for users expect the content they create to be consumed, and the wider their audience is, the more value they get from SNSs. As an effect of what Rollett et al. (Rollett et al., 2007) call the “network effects by default,” the more users use a SNS, the more valuable it is to its users.

Further, as Web 2.0 uncouples the data from presentation, the design of SNSs has become highly data-driven (Baehr & Lang, 2012; Dilger, 2010). The data are not only UGC, but also include metadata generated automatically whenever users use the SNSs. The data-driven design provides greater opportunities for SNSs to customize for each user, tailoring content based on their activities.

What needs to be added to Rollett et al.’s (2007) list of design patterns of Web 2.0 is the central position of functions. As Dilger (2010) has argued, “Web 2.0’s conceptual stand revolves around function” (p. 18). According to Dilger (2010), the functions of Web 2.0 are “layered,” i.e., additional functions can be layered on top of the core functions, the core function is immediately visible, has a “low threshold of effort,” and “delivers clear benefit to end users,” and provides “identity.” It needs to be noted that the Dilger’s notion of the “functions” of Web 2.0 here is a narrower concept than Faulkner and Runde’s (2009, 2013) notion of the “functions” of technological objects. The “function” in Dilger (2010) refers to a property of a website *designed* by the designers and *actualized* by web developers to allow users to achieve a specific task or goal. Therefore, the function is always intended, and it

reflects the mind of the designer. The “function” in Faulkner and Runde (2009, 2013), on the other hand, denotes the property of a technological object that is *assigned* to it by a community of actors involved in every stage of the life of the technological object to allow users to make use of it in their lives. The function, therefore, is not always intended, and it reflects the values, preferences, and characters of a larger culture. Nevertheless, these two concepts of functions are certainly closely connected. The designed functions are part of both the form of a technological object that provides the artifact the capacities to carry out its social functions.

2.5.2 SNSs function as media

Since SNSs are often considered a subset of social media, it is reasonable that we need to address their functions as “media” when we speak of their identities. Although many emphasize their identities as “networks” and attempt to break them from “media,” I prefer to conceptualize them as communication technological objects that conglomerate and mix the functions, both assigned and designed, which are assigned to and designed for myriad media preceding them, from broadcast media to personal communication medium such as email or live chat. However, each individual SNS has its what I call “bias” towards the communication that its form, i.e., design, supports. To better understand this bias, let us first take a look at the characteristics of mass communication, the most public form of communication on a spectrum of media. As Călin and Bunăiașu (2010, p. 232) summarize:

The fundamental characteristic of mass communication is the radiation of messages around a source; it is always indirect (between the moment of the emission and the one of the reception there is a delay: in space, time or space and time), unilateral

(from the emitter to the receiver) and public (it is addressed to all that who can appropriate the message and who doesn't represent a small group and clearly defined). Synthesizing more definitions, it can be said that the mass communication is oriented through big, heterogeneous audience which is unknown by the communicator, of being characterized of ubiquity and by the anonymity of the emission and reception. (p. 232)

Peters (2010) further characterizes mass media in three crucial aspects, "indefinite forms of addresses," "extended delivery systems," and "loose coupling of sending and receiving." First of all, to the media institutions, the reception of content on mass media is uncertain and the context of reception is not controlled, and therefore, the message or content is designed for a general and indefinite audience. This condition is what "indefinite forms of address" refers to. Second, the delivery system of modern media has achieved both simultaneity and a large social scale, whose speed is pushing to "zero" and "size of audience to infinity" (Peters, 2010, p. 272). Such is the condition referred to by "extended delivery systems." Finally, unlike face-to-face talk, mass media do not support real-time responses from the audience, and thus "uncouple" the "sending and receiving" of content. In other words, rather than a bi-directional dialogue, the communication on mass media is more like a one-directional monologue.

In comparison, interpersonal communication has different characteristics. According to O'Sullivan (O'Sullivan, 2005), interpersonal communication is characterized with "(a) two-way, (b) nonmediated message exchange between (c) a very small number of participants (usually two), (d) who have personal knowledge of each other" (p.7). This definition is a "classic," or

perhaps more accurately, a Socratic understanding of interpersonal communication, for “nonmediated message exchange” is certainly too narrow a criterion for interpersonal communication since even before the emergence of what we consider the modern communication technologies such as telephone, interpersonal communication had been mediated with the use of, for instance, sealed envelopes for private written messages. In communication studies, as O’Sullivan (2005) has pointed out, scholars have accepted communication mediated with “telephone, email, and instant messaging” as interpersonal communication in addition to “face-to-face interactions” (7-8).

It needs to be noted that the divide between mass communication and interpersonal communication has been questioned, if not frowned upon, by many in communication studies (Avery & McCain, 1982; O’Sullivan, 1999, 2005; Packer, 2010). It has been widely agreed among scholars interested in media and communication that the developments in computing and information technologies have blurred the boundaries of forms of communication traditionally understood as mass and interpersonal communication. For instance, Chaffee and Metzger (2001) argue that the contemporary media have been transformed by technologies so much that the term “mass communication” has become obsolete and pronounced “the end of mass media,” in that the Internet, “through digital convergence, will form the backbone of most future mediated communication” (p. 370).

However, this rejection of the divide of mass and interpersonal communication should not prevent us from thinking about communication and media “at once philosophically general and pragmatically particular” (Peters, 2010). My approach to the particularity of communication and media in dissertation is to conceptualize SNSs as having biases and

tendencies towards, and priorities to certain modes of communication, instead of doing so in absolute and definitive terms. This is because SNSs are always already a hybrid of media from their birth, incorporating functions of preceding media such as, for examples, one-to-one communication technologies such as email and mass media such as periodicals and broadcasting media.

This approach can reach even deeper within the modes of communication. In this dissertation, I take into consideration, in addition to the particularities between mass media and media used for private communication, the nuances of different forms of communication within a broad category. Take two forms of mass communication, publishing (writing and printing) and broadcasting for examples, as Peters (2010), argues, “if we define broadcasting as a form of dissemination that connects dispersed people via a common text at a more or less common time, then writing and printing both allowed for forms of broadcasting *avant la lettre*” (p. 271). However, the two forms of mass communication have their different biases towards space and time, in that as broadcasting converges the audience at the same moment across a large space, publishing converges the audience in the same place, i.e., a book page or a webpage, across a long time. The convergence of publishing and broadcasting has become especially apparent in the case of SNSs. If the pre-Web 2.0 websites are more like publishing, then SNSs have moved their identities towards broadcasting with their real-time updates and feeds.

Finally, although SNSs have many characteristics of mass media, they also have radical differences, and these radical differences are as political as they are technological. A critical component in the identity of the traditional mass media such as radio and television is that,

rather than “neutral” technologies, they are institutions with “capacity for mass production and dissemination of messages” (Peters, 2010, p. 275). Because of their high entry costs, they were characterized by scholars in the 1950s as “bigness and fewness” (Chaffee & Metzger, 2001). If the traditional mass media have expanded the receivers of messages with each technological innovation, the Internet, especially SNSs, has expanded the senders of messages. This is the most significant break between SNSs and traditional media—SNSs uncouple the institutions of mass media production from the infrastructure of information transmission, and each user of SNSs can be a broadcaster without possessing the capital and the technologies to transmit their messages.

2.6 Culture and Web Design and Use: A Review of Research

Research has indicated that why and how users use SNSs is affected by cultural norms, codes and values prevalent in their cultures (Arola, 2010). Comparing U.S. and Korean college students’ motives and patterns of using SNSs, Kim et al. (Bray, 2005; Yoojung Kim et al., 2011) find that, although the major motives of using SNSs—connecting to friends, seeking social support entertainment, information and convenience—are similar between the two cultural groups, the value, or weight, they assign to these motives differs. For instance, while Korean users tend to use SNSs more often to seek support from existing relationships, which requires deeper involvement and commitment, U.S. users tend to use SNSs for casual relationships or to seek entertainment.

The differences in SNS users’ motives and usage that connect to their cultures exist even in cultures that share a common origin or are closely related. Comparing U.S. and European users, Vasalou et al. (2011) conclude that culture is a factor that influences users’ “true

commitment” to using a certain SNS, manifested in activities through which users create value and content, stay active and loyal, and involve others. In this particular case, the authors note, the factor of culture even has greater impact on users’ activities than their experience with technology, or technological literacy, in general.

At the same time, studies have shown that designers in different cultures have intentionally or unintentionally designed SNSs that reflect the cultural values and norms of their intended users. For instance, interview responses of users of Cyword, a Korea-based SNS, suggested that Cyword’s design supports users to maintain relationships transferred from the offline world in Korea’s collectivist culture (2010). SNS designers in different cultures design rhetorical styles customized so that they are culturally appropriate and effective for their target users (K.-H. Kim & Yun, 2008). In a comparative study between the U.S.-based SNS Facebook and the Japan-based Mixi, for instance, the researchers find that the style of persuasion designs—rhetorical practices that aim at motivating users to take specific target actions—for these two websites mirror their cultural values and norms (Fogg & Iizawa, 2008). As Facebook’s persuasion design tends to be more assertive and mechanistic, Mixi’s appears to be subtle and indirect (Fogg & Iizawa, 2008).

The literature review above shows that with the growth of SNS use across the globe, especially in cultures other than that of Europe and North America, there is a need in the design of SNSs to consider the cultural contexts of use. On the other hand, understanding the deep connection between design and its cultural context opens up opportunities for developers and designers to improve SNS design for users. Despite the need for knowledge and practice of a culturally conscious approach to SNS design, not much research has been done to further our

understanding of culture's role and influence in shaping the design of SNSs besides the pieces aforementioned in this section. In the next section, I review the literature in general website cultural usability research to lay out the foundation for the present study, and further discuss the gaps in the existing research as well as the need for new research.

Technical and professional communicators have carried out research to explore the impact of national or ethnic culture on website design and user experience since the late 1990s (Fogg & Iizawa, 2008). Arnold pointed out the increasingly diverse cultural backgrounds of web users at the time compelled technical communicators to start paying attention to designing web-based content with the consideration of users' cultural diversity (Arnold, 1998; St. Amant, 2005; Zahedi, Van Pelt, & Song, 2001). Terms such as "culturability" and "cultural usability" are used to call attention to culture's influence on website usability as well as the usability of software for international use (Arnold, 1998).

Empirical research in website cultural usability shares two main objectives, as identified by Badre (Badre, 2000; Barber & Badre, 1998). The first is to "identify and study design standards and conventions that distinguish cultures as manifested in existing Web pages" and the second is to "understand how cultural influences lead to variations in peoples' behaviors and practices" (2000).

To achieve the first objective, researchers carry out studies in which they analyze features of websites designed in different cultures and identify what Barber and Badre (Badre, 2000, p. 3) call "cultural marks," or, "interface design elements and features that are prevalent, and possibly preferred, within a particular cultural group" (par. 3). Barber and Badre (1998) argue that a cultural marker, such as a national symbol, color, or spatial organization, for

example, denotes a conventionalized use of the feature in the web-site, not an anomalous feature that occurs infrequently” and thus “signif[ies] a cultural affiliation” (par. 3). By identifying cultural markers on websites designed in a particular culture, researchers and designers can develop guidelines for designing the same type of websites for users within this culture (1998).

Another approach to website cultural usability research focuses on the relationship between the user’s culture and how they use the web and perceive design. Researchers taking this approach observe, analyze, and compare users’ attitudes about web design and how users use websites in different cultures (Amant, 2005; Cyr & Trevor-Smith, 2004; Fraternali & Tisi, 2008; Nitish Singh & Pereira, 2005). Research has shown that users from different cultures respond differently to concrete and abstract representations and that thematic and functional structures and their performance can be improved through learning even when using website not designed to their preferences (Arnold, 1998; Choong & Salvendy, 1999; Sapienza, 2008). Others show that users’ cultural backgrounds play a substantial role in determining website design preferences and attitudes, and the effectiveness of website cultural customization is affected by how strong the user identifies with her ethnic culture (Choong & Salvendy, 1999).

Many studies in cross-cultural web design and/or web cultural usability have used Hofstede’s cultural dimensions theory and Hall’s cultural contexting theory as discussed in the previous section (Hall, 1983, 1989; Hall & Hall, 1990; Hofstede, 2001; Hofstede et al., 2010). Some of these studies are design-focused, and rely on the assumption of conventions and use actual websites as objects of inquiry (Ackerman, 2002; Cyr & Trevor-Smith, 2004; H. Kim et al., 2009; Marcus & Gould, 2000; Nitish Singh & Pereira, 2005). These studies often analyze

elements on websites designed locally, i.e., designed in the geographically local location and by designers from the local culture, and summarize the patterns of design and conventions found on websites designed in and for certain cultures. Other studies test user's performance in the lab setting or examine users' perception on certain designs or design elements that are representative of characteristics considered typical to certain cultures (Badre, 2000; Gevorgyan & Manucharova, 2009).

Previous research in website cultural usability has established the importance of considering users' cultural backgrounds in website design, but its narrow focus on the visual presentation of information limits its application on exploring the impact of culture on the design of SNSs in the Web 2.0 era. For instance, Badre (Callahan, 2006) has listed "colors, spatial organization, fonts, shapes, icons and metaphors, geography, language, flags, sounds, and motion" as design elements that "contribute to the design and content of a Web page, which directly affects the way that a user interacts with the site." These are the design concerns of many researchers in cultural usability (Badre, 2000, p. 2). Others examine the connection between culture and the design architecture of websites, such as superstructure, chunking, and navigation (Callahan, 2006; Cyr & Trevor-Smith, 2004; Nitish Singh & Pereira, 2005). The central concern of these studies is how *information is presented*, rather than how *information and activities are mediated* through design. As Sun (McCool, 2006) has pointed out, website localization specialists often focus their attention on the "delivery aspects of technology" but neglect the complexities of the actual practice and activities users carry out when interact with technology and with each other through technology in a certain cultural context. The research, thus, is mainly concerned with what Hoft (2006, p. 460) calls "general localization" rather than

“radical localization” that “incorporates cultural differences that affect the way users think, feel, and act, above and beyond the superficial differences.” Accordingly, in these studies, researchers focus narrowly on the design of graphical user interface (GUI), and neglect other important components in the UI. For instance, Johnson (1998) argues that rather than the “covering” of the system, the interface “can consist of the materials that explain a system’s functions, like instructional materials or documentation” (p. 27). In the case of SNSs, function features and network regulations and policies that stipulate users’ rights are particular important components of the UI.

To bridge this gap, I conduct a comparative study of the design of microblogging SNSs Twitter designed in the United States and Sina Weibo designed in China to answer the following research questions:

1. Whether the designs of Twitter and Sina Weibo indicate changes in the identity of microblogging SNS when it is transferred to and localized in China?
2. What are the implications of the findings in the impact of culture on technological identities of SNSs as well as usability research and practice?

By answering these questions, I hope to further the understanding of culture’s impact on SNS design and their identities as they are transferred across cultures. At the same time, I want to offer a point-in-time comparison between the designs of the SNSs in the two countries when the two markets are not yet completely integrated, which will offer a reference for future studies in the effects of a globalized economy on cross-cultural technology transfer.

Methodologically, I propose a new method of user-centered, function-oriented, qualitative analysis of SNS design, informed by the user-centered cultural usability approach

and the theory of technological identity. With this method, the focus of the analysis of the SNS design will be the design elements of both functions and user interface that support users' activities on the SNS and affect users' experience of using the SNS. This methodological approach broadens the scope of the research in cultural usability from visual elements to functions, and from instrumental and operational affordances to social affordances.

Theoretically, I hope to introduce the theory of technological identity to technical communication as a research paradigm in web cultural usability research, and to enrich the theory of technological identity by introducing a user-centered technology perspective.

3 A CASE STUDY: MICROBLOGGING SNSS IN THE U.S. AND CHINA

In this chapter, I first justify my choice of the United States and China as the two cultures compared. I then offer brief histories of the development of SNSs in the two countries. Finally, I discuss the method of data collection and analysis used in this dissertation.

3.1 Cultural contexts: the United States and China

In this study, I compare SNSs, two microblogging sites, based in the United States and China respectively. The rationale for my choice of these countries to represent the cultural variables in this study is based on the assumption that the dominant cultures in these two countries have characteristics that are distinct from each other. My own cultural background as a Chinese national living in the United States and my educational background—I received my Bachelor of Arts in English from a Chinese university and my Master of Arts in Mass Communication from a U.S. university—also make the two cultures reasonable choices for this study, for my language skills and good understanding of both the Chinese and the American cultures are crucial skills required in such a comparative study.

As I have discussed earlier, national or ethnic culture is a complex historical and social phenomenon formed through the shared experience of a group of people over a long period of time. It would be an unrealistic ambition to characterize the cultures in these two countries in any way that will not render a simplistic, reductive, or even skewed picture in this dissertation. However, it is reasonable to assume that with their own histories and dominant ideological traditions rooted therein—to name a few, the liberal tradition (Gerstle, 1994; Ryan, 1995) and the Protestant tradition (Weber, 2001) in the United States, and the Confucian, Taoist, and

Buddhist traditions in China (Gu, 2009)—the cultures of the two countries necessarily differ from each other in significant and meaningful ways that suffice the need for this study. This assumption is consistent with the characterization of the values of the dominant cultures in the United States and China respectively, distributed on a spectrum in the following dimensions based on Hall's (1976) and Hofstede's (1980, 2001) work (Table 3.1).

Table 3-1 The cultural dimension values of the United States and China

Cultural Dimensions	American Culture	Chinese Culture
Power Distance	Low	High
Uncertainty Avoidance	High	Low
Collectivism vs. Individualism	Individualism	Collectivism
Long-term vs. Short-term Orientation	Short-term orientation	Long-term orientation
Communication Style	Low-context communication	High-context communication

In research literature, the United States and China have been used in numerous studies that examine the differences in various aspects of technical communication across cultures (Barnum & Li, 2006; Siau, Erickson, & Han, 2010; Sun, 2004, 2006). In website cultural usability literature, studies that compare website design and usability between American and Chinese websites and users have shown differences in performances when different types of icons are used (Choong & Salvendy, 1998) and websites designed by designers from different cultures (Faiola & MacDorman, 2008; Faiola & Matei, 2006). Others have identified cultural markers for U.S.-based and China-based websites respectively, which can be used to create guidelines for

website design (Fraternali & Tisi, 2008). Other issues such as language styles and web content in connection to website usability are examined in cross cultural studies between the United States and China (N. Singh, Zhao, & Hu, 2003; Zhu, 2009).

More importantly, the development of SNSs in China has always been a combination of U.S.-transfer and local development, as shown in the next section. In addition, the blocking of the major global SNSs in China by the Chinese government has created a space for Chinese indigenous SNSs to emerge and mature, unlike small-scale SNSs that specifically cater for user groups in certain countries such as Korea-based Cyworld, Japan-based Mixi, and India-based Orkut, which have been pushed out of their home markets by U.S.-based SNSs. SNSs designed in the United States and in China, thus, provide data for the

3.2 A tale of two cultures: brief histories of SNSs

As technology writer Shea Bennett writes, “[t]he history of social media is, essentially, the history of the Internet, and you will find its roots in email, usenet, the world wide web, blogs and (gasp) AOL” (Bennett, 2012). In both the United States and China, SNSs are the end of a long line of Internet technologies and artifacts from the Bulletin Board System (BBS), Usenet, to blogs, and microblogging sites, which can be traced back to the late 1970s. For the most part, the development of these technologies and artifacts in the United States has been ahead of that in China, and in fact, the transfer of these technologies from the United States to China has been a critical part in their development in China. As Gu (2009) has pointed out, “computer technology in China is a combined product of foreign transfer and native development” (p. 178). These technologies and artifacts in China have been a combined effort of communication and localized development and innovations.

Over more than three decades, however, the speed of transfer of these technologies and artifacts from the United States to China has been continuously increasing. In other words, it has been taking shorter periods of time for the newer technologies and artifacts in this line to be transferred and localized in China. In this section, I present the brief histories of the development of SNSs in the United States and China, as an effort to contextualize this case study.

3.2.1 *Pre-SNS Era*

Bulletin Board System (BBS) is a network-based computer system that allows users to publicly exchange messages or files using a terminal program, in a way that resembles using a cork bulletin board in the office. Ward Christensen, a former IBM employee and a member of the Chicago Area Computer Hobbyists Exchange, conceived the idea of BBS in 1978 (Simon, 2011, p. 5).

With the emergence and popularization of the World Wide Web in the early and mid-1990s, BBSs evolved into online forums or message boards, which are Web versions of BBSs built using Web applications such as WIT, vBulletin, and phpBB ("Forum software timeline 1994-2012," 2012). Like a BBS, a forum usually has a focus of interest for discussions. Structurally, it usually has more than one section and, in some cases, it breaks down further to sub-sections. The topics on a forum are organized into "threads," each consisting of the original post, the messages that reply to it, and those that reply to the replying messages.

Forums have many advantages in terms of usability compared to BBSs. They are Web-based and thus accessible via Web browsers, and they use GUIs instead of BBSs' text-based interfaces. Since browser based programs are widely adopted because every computer now

comes with at least one browser installed and they are the default for networked interaction, forums are much easy to use and gained its popularity quickly since its emergence in 1994. Bigboards.com, a website that tracks message boards and forums, currently has 2337 message boards in its database, and the most popular forum, Gala Online, has almost 27 million members and more than 2 billion posts ("Forum rankings," 2013; "Welcom," 2013).

It took about fifteen years for the Chinese to build the first BBS. Technologically, the Chinese BBSs skipped the dial-up phase, and used Telnet access from the beginning. This put Chinese BBSs ahead in their development and only a few years behind those in the U.S., for although Telnet was developed in the late 1960s and early 1970s, it was not used for BBSs until the early 1990s in the U.S.

The first Chinese BBS, named "*Shuguang* (曙光) BBS," or "Aurora BBS" ("China's first BBS website Aurora BBS," 2008), was built by the National Research Center for Intelligent Computing Systems in 1994. Aurora BBS had the basic BBS functions such as posting and replying messages. In addition, the BBS included functions such as instant messaging and chat rooms, which enabled wider and deeper interaction among users. It was the first site in China that used instant messaging, which later became a popular feature on major SNSs in China ("The tenth anniversary of China's first Internet BBS Aurora BBS," 2004). In its early years, the participants in Aurora BBS were predominantly IT professionals, researchers, and students. In 1995, three students at the renowned Tsinghua University built SMUTH BBS (*Shuimu Tsinghua* BBS), a BBS open to the public that had quickly become one of the most popular BBSs at the time ("Tsinghua University's SMTH BBS Built in 1995," 2008). In 1999, Tianya BBS was launched.

These BBSs are also called “*wangluo shequ*” in China, or “online communities.” Users are required to register for an account to access the content of the website. Although the users do not have a “profile” with personal information, unique web aliases are used to identify users within the BBS.

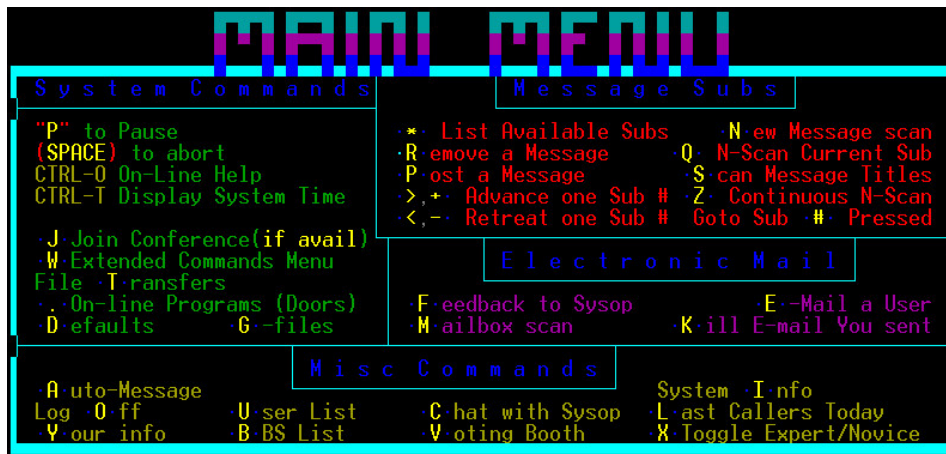


Figure 3-1 An example of the user interface of a BBS (Edwards, 2006).



Figure 3-2 Launching page of SMTH BBS in 1995 (retrieved from tech.sina.com.cn)

Besides BBSs, Usenet is another network-based open communication system that was popular in the 1980s and 1990s. Usenet shares some similar structural features with the BBS, but is based on different technologies. The first Usenet, short for “users network,” was built by three American students in Duke University and University of North Carolina at Chapel Hill in the 1979 as a worldwide Internet-based communication system (Bonnett, 2010; Lueg & Fisher, 2003).

In the United States, with the emergence of the Web and new tools such as Web-based BBS and SNSs, Usenet seems to have fallen out of favor by users. In recent years, major ISPs such as AOL, Time Warner Cable, AT&T, Verizon, and Comcast have either dropped Usenet access service all together or limited the newsgroups to the “Big Eight” because binary newsgroups can occupy a large amount of bandwidth, and the IPSs are under increasing pressure from legal actions against pornography and copy right infringement (DeJean, 2008). In 2010, Purdue University shut down its Usenet server (Bonnett, 2010). However, some believe that it remains an alternative source for media sharing, and in some cases, such as countries with strict media control, it provides an alternative for information sharing and discussion (Cool & Adams, 2007; DeJean, 2008).

Similar to BBS, it took about fifteen years after the first Usenet was built for Chinese to

Webpage Screenshot

新帆新闻组Web版

序号	讨论组	文章数
1	聊天灌水.情感	28073
2	休闲娱乐.讽刺与幽默	162612
3	本站站务.公告	58
4	本站站务.站务讨论	51282
5	财会金融	5989
6	计算机	641
7	计算机.软件	4122
8	计算机.软件.办公软件.MsOffice	6267
9	计算机.软件.编程	554
10	计算机.软件.编程.ASP	315
11	计算机.软件.编程.C语言	1578
12	计算机.软件.编程.Delphi	271
13	计算机.软件.编程.Java	527
14	计算机.软件.编程.Pperl	77
15	计算机.软件.编程.PHP	481
16	计算机.软件.编程.PowerBuilder	86
17	计算机.软件.编程.汇编	121
18	计算机.软件.编程.算法	119
19	计算机.软件.病毒	631
20	计算机.软件.操作系统	171

http://www.smsq.org/

Figure 3-3 Xinfan Newgroups, web version

start using newsgroups. The first newsgroups appeared in China around 1997. By 2002, twenty newsgroups services were used regularly in China, and the biggest ones hosted about 2,000 newsgroups (Nian, 2002).

Technically, the language barrier posed the biggest challenge for Chinese newsgroup users. Because the newsgroups on Usenet are organized linguistically based on English or at least the Latin alphabet, for Chinese users, it was a challenge to navigate the content without sufficient English comprehension skills.

It was not surprising, therefore, that the first newsgroups in China are indexed in hierarchies coded in Chinese in a format similar to hierarchies on Usenet. The first Chinese newsgroups server was launched around 1997, Wanqian Newsgroups (万千新闻组). However, not until the launch of NewsFan Newsgroups (新帆新闻组) in 2000 were Chinese characters used for hierarchies and newsgroups (see Figure ##).

Moreover, since the Chinese hierarchies are not compatible with Usenet hierarchies, the Chinese newsgroups are not indexed on Usenet, which means that they are not accessible through Usenet. However, Bentium, an IT company based in South China, provided a solution to this issue. In 2001, Bentium's newsgroup site news.cn99.com created cn.* as a top-level Usenet hierarchy for newsgroups in Mainland China. The site provided access to Usenet English newsgroups under the "Big Eight" and alt.*, and Chinese newsgroups under cn.bbs.*, tw.bbs.* (Chinese newsgroups for Taiwan) and hk.bbs.* (Chinese newsgroups for Hong Kong) (duchaoqian, 2004; "Newsgroups," 2012). This was perhaps among the first experiences when Chinese Internet users tried to connect to the global user networks.

By the time of personal webpages, the development of early social Internet technologies in China has been almost at the same pace as that in the United States, although the direction of technology transfer was still predominantly from the United States to China. In the early mid-1990s, Internet service providers (ISPs) in the United States started to host personal webpages, webpages built by individual commercial Internet service users using HTML. One of the earliest and most successful personal web page host was Beverly Hills Internet (BHI), an ISP based in Los Angeles. The company was started in 1994, based on the cofounder David Bohnett's philosophy that "everyone should be able to have their own website" (Milian, 2009). By 1995, "[a]s more users began to crowd BHI's chat rooms, galleries, member pages, and, of course, message boards," the company boasted six million page views a month (Simon, 2011, p. 7). In 1995, the company changed the name of their network of personal websites to "GeoCities" and by 1997, the members of GeoCities, or "Homesteaders" in the community's terminology, had exceeded a million (Simon, 2011, p. 7).

Personal webpages emerged in China around the same time as they did in the United States. From 1994, Chinese Internet users, mostly developers, started to make personal pages, although the number was very small due to the lack of consumer-oriented webpage making software. 1997 and 1998 saw a booming personal webpage market in China. Some personal webpage websites during this time such as Netease, CF99.com have become some of the major websites in China. ("The three stages of the lives of personal pages," 2005)

Another important technology that predated SNSs is instant messaging (IM), which is used for direct and real-time text-based communication between two or more participants on a network. Although chat was available on some BBSs in the 1980s and 1990s, the emergence

and popularization of the modern IM should be attributed to the work of America Online (AOL). In 1996, AOL included in their Internet service the “Buddy List technology,” which would allow AOL customers to “communicate in an instant fashion to people all over the world” using their computers (Wylie & Aguilar, 1996). In 1997, teamed with Netscape, AOL made AOL Instant Messenger service available to all users across the Internet (Lohr, 1997; MacDonald, 1997). AOL Instant Messenger (AIM) included two features. The first was “Instant Message,” which sent instant notifications of new messages and allowed users to respond in real-time. Each conversation had its own text box, and multiple conversations could be carried on simultaneously. The other one was “Buddy List,” which allowed users to create a list of contacts and receive notification when they were online (MacDonald, 1997). These features have become the basic features that define IM as a communication tool.

AIM grew popular quickly. By 1998, it had more than 20 million registered users, and 225 million instant messages were sent each day (Hu, 1998). Other IM applications also emerged as more users use IM to communicate as an alternative to email and telephone (Lohr, 1997). Vendors such as Mirabilis, an Israeli company that launched its IM service ICQ in 1996, and Aquity whose IM service was called “ichat,” offered free versions of IM applications that would work on PC and Mac. Especially, ICQ’s version worked “for just about anything you can think of, including PalmPilots and older 68K Mac machines” (Regan, 1998). ICQ was acquired by AOL in 1998, bringing in 11.4 million registered users with it, and continues to be one of the major IM applications in use today, despite the emergence of new competitors such as MSN Messenger, Skype, iChat, and Google Chat.

Two main defining features of SNSs are pioneered in IM applications. The first is a user profile. IM users have to register for an account and create a profile, which is a feature absent from early BBS, forums, or Usenet, where registration is not required. In the registering process, the user is asked to fill out a registration form that will include information such as username and/or screen name, and personal information such as age, gender, location, education, and profession. The user can upload a profile photo, and decide what information is to be made visible on her/his profile through security setting. Although the private information on IM profiles is usually not as comprehensive as SNSs' user profiles, which often also include hobbies, interests, etc., they share the basic format and function as user profiles on SNSs.

Another important feature of IM application is a user-defined contacts list, or "buddy list" (boyd & Ellison, 2007). This is a list created by a user to connect to other users with whom the user wishes to communicate via IM. The status of a "contact" is mutual, or two-directional, which means that when user A is on user B's contacts list, user B also appears on user A's contacts list. In other words, one-directional connection, such as seen in Twitter's and Facebook's "following" feature, is not allowed. Depending on the user's privacy settings, permission may be required when adding a user to a contacts list. The contacts list shows the contacts' status, i.e., whether they are online, off-line, or "away," meaning online but inactive for a certain time. The IM feature of contacts list is likely to have inspired an essential feature of SNSs, the "Friend list," despite that an IM contacts list is not publicly articulated while "Friends lists" of SNSs are (boyd & Ellison, 2007, p. 214)

IM has been incorporated as a feature by many SNSs, such as Facebook, MySpace, Orkut (a Brazilian SNS bought by Google), and most SNSs in China. The interface of these IM tools

within SNSs usually resembles that of a traditional IM application, with a contact list that shows who is online, and text boxes for conversations.

IM was introduced in China in 1999, only three years after AOL launched the “Buddy List” service for their customers and the launch of ICQ. Tencent, an IT company in Shenzhen in south China, launched the first Chinese IM application. The application was modeled after ICQ and was originally named “OICQ.” In response to a copyright complaint filed by AOL, OICQ was renamed QQ in 2000 (Goggin & McLelland, 2009, p. 267; Zheng, 2010)

Although the UIs of OICQ was very similar to ICQ, it was localized for Chinese users in two ways. First of all, based on Chinese encoding, OICQ’s interface was designed for Chinese users to quickly input Chinese characters. At the time, the encoding technology did not support ideographic languages well, such as Chinese (Goggin & McLelland, 2009, p. 266). ICQ, although popular among users of European languages, did not support Chinese input and thus was not accessible for most Chinese users. The emergence of OICQ localized for Chinese users bridged this gap between IM technology and Chinese users.

Besides the unique Chinese encoding, the 1999 version of OICQ also allowed users to connect the application to wireless pages and cell phones (Goggin & McLelland, 2009, p. 267). Using IM on mobile devices was just emerging as a service in the US then. Even the most significant provider of IM service, AOL, did not offer the service until 2001 when it released its new AIM application that was separate from the main AOL services (Klein, 2001). The mobile feature was introduced to ICQ in 2004 when AOL released ICQ 4.0 (Worthington, 2004). In this aspect, OICQ was ahead of its American counterparts.



Figure 3-4: Interface of ICQ in 2000 (Cubert, 2009)



Figure 3-5 Interface of OICQ in 2000 ("Gallery: QQ's interfaces from 1999 to 2009," 2009)

In China, besides the technological lineage between IM and SNSs, as a major IM service provider, QQ played a significant role in the development of SNSs in China. With its features designed for Chinese users, OICQ and its later version QQ became a hugely popular application in China, especially among young people, immediately after its launch. By the end of 1999, its accounts exceeded one million, and the next year, reached ten million, with more than 100,000 simultaneous users in May 2000 (Goggin & McLelland, 2009, p. 267). By the mid-2000s, QQ had become a dominant player in China's IM market (Hancock, 2013). In 2011, Tencent QQ ranked the first in IM use in China with more than 374 million monthly unique visitors, which outnumbered users of some of the most popular IM applications used worldwide at the time such as MSN Messenger and Skype ("Tencent QQ ranks first in 2011 China best IM software," 2012). QQ is so popular that a Forbes's technology writer Eric Savitz (2012) writes that "it's difficult to find anyone in China without a QQ account."

The popularity of QQ IM has provided a user base for the development of SNSs in China, for the IM application users not only are familiar with the technology, but also have a desire to connect. In other words, QQ and its network of users are an important step stone to the development of SNSs in China.

3.2.2 SNSs

Researchers of SNSs have placed the birth of the first SNS in various times, but very often, Classmates.com and SixDegrees.com, launched in 1996 and 1997 respectively, are considered the first SNSs by many researchers (J. Kim, Leem, Kim, & Cheon, 2013). According to boyd and Elison (2007), the first SNS was SixDegrees.com launched in 1997. The website combined the key features that define an SNS, and allowed users to construct a public or semi-

public profile and an articulated friend list, and, after 1998, to browse the friends lists (2007, p. 214). Others, loosely regarding blogs, forums, and dating sites as some sort of early forms of SNSs—or, pushing further, “the Internet has always been social” (Bennett, 2012)—agree that Six Degree was the “first modern social network” (“The history and evolution of social media,” 2009). The site was closed down in 2000, and its founder, A. Weinreich believed that it was ahead of its time. As boyd and Ellison point out, in the late 1990s and early 2000, “[w]hile people were already flocking to the Internet, most did not have extended networks of friends who were online. Early adopters complained that there was little to do after accepting Friend requests, and most users were not interested in meeting strangers” (boyd & Ellison, 2007, p. 214).

Between 1997 and 2001, websites such as AsianAvenue, Migente, and BlackPlanet, were set up, which allowed users to create profiles and friends lists (“The history and evolution of social media,” 2009). As Kim et al. have summarized, globally, the growth of SNSs has had three inflection points, the initial rush around 1999 and 2000, after SixDegree’s success, the Web 2.0 hype in the mid 2000, and the dramatic growth with the introduction of smart mobile devices after that (J. Kim et al., 2013).

The first SNS appeared in China in 1998, when Chinaren.com, originally an online community for classmates and schoolmates to connect to each other, was launched. Using QQ as a primary entry point, Tencent extended its service to a full-blown SNS, Qzone in 2005. The SNS stands as China’s biggest SNS with reported 700 million monthly active users in 2012 and more than 170 million users logged in simultaneously during peak times (Ho, 2013; Savitz, 2012).

Since many Chinese SNSs are based on the design of U.S. SNSs, such as Renren and Kaixin modeled based on Facebook, and Youku modeled based on Youtube, Chinese SNSs have gained unfavorable reputations as “Copycats,” “clones,” or “knockoffs.” (Rabkin 2011; Vidyarthi, 2012; Moskvitch, 2012). One of the most recent rising US SNSs that has become a prototype for “cloning” in China is Pinterest, a social imaging sharing website that topped the fastest growing SNSs list in 2012 (“Social Media Report 2012”). Or the Copy2China (C2C) model (Ye, 2011). According to BBC’s technology reporter Katia Moskvitch (2012), about 20 Chinese “clones” of Pinterest have emerged. In November 2011, a sub-service, “Shopping Sharing Site,” on Renren (renren.com), one of China’s most popular SNSs, updated the design and changed the name to Renren Guangjie. The design has been what technology reporters called a “clone” of Pinterest as well (Vidyarthi, 2012).

However, innovations and efforts of localization exist. For instance, Douban is one of the original SNSs designed in China. The SNS is where users can publish and search for books, film, and music, share reviews, and participate in interest groups and forum discussions. It is “a true example of homegrown innovation” (Ye, 2011). The site was launched in March 2005, and by the end of 2005, its registered users have exceeded 50,000 (“Douban founder Yang Bo on website,” 2005). By September 2012, it had attracted 100 million users (Wang, 2012). It is “a deep social network that has attracted some of the top Chinese intellectuals, geeks, and urban hipsters to organize and exchange thoughts on social issues in forum-like groups” (Ye, 2011).

Others, such as Sina Weibo, as I will demonstrate in the rest of this dissertation, have many nuanced design differences from Twitter. Many of these differences, less visible than template design, can only be revealed on the activity level.

3.2.3 Microblogging

Twitter was in the Chinese market, i.e., it was accessible from China when it was first launched. Although Twitter supported SMS, which was heavily used in China, Chinese Twitter users would have to pay international short message fees to tweet via their cell phone. Besides, Twitter did not support IM applications such as QQ and MSN, which were very popular in China. Many early Chinese Twitter adaptors dropped out of Twitter because of the lack of Chinese content (Huang, 2007).

Chinese IT companies began to launch microblogging sites almost immediately after Twitter was launched in 2006 (Guo, 2009; Huang, 2007). For instance, Fanfou.com (饭否网), Jiwai.com (叽歪网), was launched in May 2007. These microblogging sites were modeled after Twitter but with features that specifically cater to Chinese users.





Figure 3-6 Images from "Sina Weibo testing experience and predictions" 2009)

These independent microblogging sites, however, had stayed in operation only for a short time due to, for a large part, government actions. In 2009, following the unrest in Xinjiang, Fanfou, Jiwei, and Zuosa were all first censored and then blocked along with Twitter by the Chinese government on the ground that they were trying to stop “terrorists” from spreading “evil information” on these networks (Ansfield, 2010). That was the end of these independent pioneers of microblogging sites (Zhang, 2009). The second generation of microblogging sites were launched by the four big portal websites, Sina, Netease, Souhu, and Tencent in 2010. Except for Netease, all these microblogging sites are still in operation today. However, Sina Weibo is the most popular one.

Because of Chinese government’s pressure of censorship, large portal affiliated microblogging sites are the only survivors in China, since it would be a huge financial burden for an independent site to shoulder the cost of censorship. It has been reported that these biggest Internet companies in China had to test “new controls on some local alternatives to Twitter to prevent them from becoming channels for proliferation of content that the Chinese authorities dislike” (Ansfield, 2010). While blocking foreign microblogging sites such as Twitter, as *The*

International Herald Tribune has reported, “Beijing has allowed microblogging on trusted domestic sites, which employ technicians and monitors to enforce propaganda orders” (Ansfield, 2010).

Of course, Twitter is not completely free from the pressure of censorship from governments. In the second half of 2012, Twitter received 1,009 information requests, with a 20 percent increase. The majority of these requests, 815, are from the U.S. government (McVeigh, 2013). According to *The Guardian’s* reporting, Twitter did not comply with most requests from governments other than the U.S. government, and “it did not comply with requests that fail to identify a user in cases when a user may have challenged the request after it notified them, or when a request was overly broad” (McVeigh, 2013).

“Inspired” by Google, on July 2, 2012, Twitter released its first “Twitter Transparency Report,” in which the company stated that “the primary goal” of the report was to “shed more light on” the following areas of Twitter’s handling its content in respect to privacy and censorship (Kessel, 2012). In October 2012, the SNS censored its first user, a neo-Nazi group called Besseres Hannover (Oremus, 2012).

Although censorship was a practice of both U.S. and Chinese SNSs, the censorship in China is much more severe. As technology writer Nancy Messieh rightly points out, Twitter does not actively censor its content; rather, it is the governments who request Twitter to block certain users or content in certain countries and regions that are doing the censoring (Messieh, 2012). In China, however, censorship, and mostly, self-censorship is always part of the life of SNSs.

3.3 Method

3.3.1 *Choice of SNSs*

The two SNSs to be examined in this study represent the mainstream designs in the respective countries, for the U.S.-based Twitter and the China-based Weibo are the most widely used microblogging SNSs in their respective countries with comparable popularity among users from these countries. Launched in 2006, Twitter is one of the most widely used SNSs with its more than half a billion users worldwide (2007). It is also one of the most used SNSs by institutional users such as businesses and governments (Riemer & Richter, 2010; "Twitter reaches half a billion accounts," 2012). Launched in 2009 by Sina Corp., Weibo has exceeded 300 million registered users in May 2012 ("Sina Weibo Registered Users Exceed 300 Million," 2012). Alexa Internet Inc., an Internet analytic firm, estimates that Twitter ranks ninth in the U.S. and Weibo ranks sixth in China, based on a daily calculation that combines average daily visitors and page views of the website from users from the country in question over the previous month ("Twitter," 2014; "Weibo," 2014) (See Table 3-2).

An advantage of selecting Twitter and Weibo in this comparative study comes from the Chinese government's blockage of Twitter in China since 2007. Seen as one of the most notorious cases of Internet censorship in the world, the blockage nevertheless has inadvertently created a comparatively isolated environment for local Chinese SNSs to develop without the direct competition and dominance of U.S.-based SNSs. In this sense, unlike SNSs based in other countries where Twitter has a significant presence, the design and use of Sina Weibo are of a sort of unusual autonomy that is hardly seen elsewhere, which provides a rare opportunity for comparison.

Table 3-2 Analytics of Twitter and Sina Weibo ("Twitter," 2014; "Weibo," 2014)

	Twitter	Sina Weibo
Alexa Traffic Rank Worldwide	9	17
Traffic Rank in Home Country	9	6
Daily Pageviews Per User	5.75	5.35
Daily Time on Site (minutes)	9:10	5.58
Sites Linking In	5,288,227	138,632
Percentage of Visitors from Home Country	28.8%	94.7%

3.3.2 Data collection

The data of this study is the design aspects and elements that support users' activities on the microblogging SNSs, which will include interface (UI) and functional feature design elements. Data were collected between January 1, 2013 and April 22, 2014.

In reality, the "users" of the two SNSs are by no means a homogenous community. They include but are not limited to the registered end users of the microblogging platforms, non-registered Internet users who can access to the SNSs on different levels, developers who develop products or services related to these SNSs or their data, researchers, business market analyzers, and governments. In this dissertation, unless otherwise stated, the "user" refers to registered end users of the SNSs.

3.3.3 Data analysis

I conduct qualitative analysis of data, and look for patterns of design that suggest social functions of the SNSs. From a user-centered perspective, I structure my analysis according to the roles users play when using the SNSs in the following three parts:

1. Design aspects and elements relevant to users as members of the user networks of communication
 - These are design aspects and elements related to user accounts, user connections, network access, and users' control of content reception as audience members and as content sources.
2. Design aspects and elements relevant to users as information seekers or consumers of content
 - These are design aspects and elements related to information architecture (IA) including the organization of content, navigation, and search, and information design on the page, including template design, the design of information elements, and the use of screen space.
3. Design elements relevant to users as information makers and movers
 - These are design aspects and elements related to posting and moving content, including the features for posting different types of content, and features that allow users to move content within the networks and beyond.

My analysis will focus on how these design aspects and elements differ between the two SNSs, and what the differences in the “form” suggest the differences in the “functions” of SNSs pertaining to their technological identities and the cultural value implied.

4 THE SHAPES OF NETWORKS: USERS, CONNECTIONS, AND COMMUNICATION

As SNSs, Twitter and Sina Weibo are communication platforms where users are connected as networks. Like other SNSs, the formation and sustainability of user networks on Twitter and Sina Weibo rely on both the system and the users who use the system to move information and interact with each other. Thus how the networks are organized, how the users are connected, and how information is communicated are critical factors that shape the technical identities of the two SNSs.

In this chapter, I compare the organization of the user networks of Twitter and Sina Weibo, which are by their respective design features. Specifically, to prepare for the discussions in this and the later chapters, I first offer an overview of the basic features characteristic to microblogging platforms shared by the two networks, i.e., features that support user accounts, users' basic activities, and how users are connected.

Next I move on to compare the designs of the two networks relevant to users as members and actors, i.e., memberships and the rights and privileges associated with them, and the different approaches to content accessibility between the two networks. Finally, I compare the characteristics of communication among users supported by the UI design, focusing on the location and the ways in which the reception of content is controlled.

4.1 Key concepts and common features

The features and functions discussed in this section are shared by Twitter and Sina Weibo. Some details in the design vary between the two SNSs, but these can be seen as the

features and functions that constitute the identity of microblogging sites as a technological object.

4.1.1 User account and profile

As SNSs, both Twitter and Sina Weibo rely on users' use of the networks, i.e., contributing, consuming, and sharing content and interacting with one another. The networks require users to register a user *account* to access the full functions of the networks. Each account is associated with a public or semi-public user *profile*, which contains a unique *username* (on Twitter) or a *screen name* (on Sina Weibo) to be used for identification and reference on the networks.

Although a user can access the content on the networks without login (the amount of content accessible without login varies between the two networks, which will be discussed later), in order to publish content and connect to other users, registration is required on both networks. This means that, unlike on websites with social media features where users can post anonymous content, often in the form of "comments," Twitter and Sina Weibo do not allow anonymous posting.¹

Twitter and Weibo offer free user account registration for individuals and organizations, and the user accounts can represent private persons, fictional personalities, and entities such as businesses, governments, organizations, and other official or unofficial social groups and institutions. Sina Weibo also offers different levels of paid accounts for individuals and organizations, which I will discuss in further details later in this chapter. Neither of the networks

¹ The term "anonymous" is used here strictly in the virtual context, rather than in the offline social context. In other words, in this context, anonymity refers to the absence of an online representation of a user, i.e., a user account, or the absence of a virtual identity. This virtual identity, however, could be "anonymous" in a larger social context if it does not point to the identity of a person in the offline world.

puts a limit to the number of accounts a user can register, which means that using different email addresses, a user can register for multiple accounts. In fact, as a widely adopted social media strategy, many organizations register multiple accounts on Twitter or Sina Weibo to publish content with different themes or concentration. For instance, on Twitter, Google Inc. has an account for each of its product, such as @googlemaps, @googlecalendar, @googleapps, etc. On Sina Weibo, Google Inc. has @Google 黑板报 for general news and information about Google, @ Google 中国校园招聘 for college graduates recruiting, and @ Google 外贸课 for AdWords marketing.

4.1.2 Tweet/weibo and the timeline

Once logged in, a user is able to publish content—*tweets* on Twitter and *weibos* on Sina Weibo, which are text entries of 140 characters or fewer, with the options to attach photos and, in Sina Weibo's case, other multimedia objects. *Tweets* and *weibos* are the basic units of the information in the networks, which are presented in the reverse chronological order as lists referred to as *timelines* (Figure 4-1).

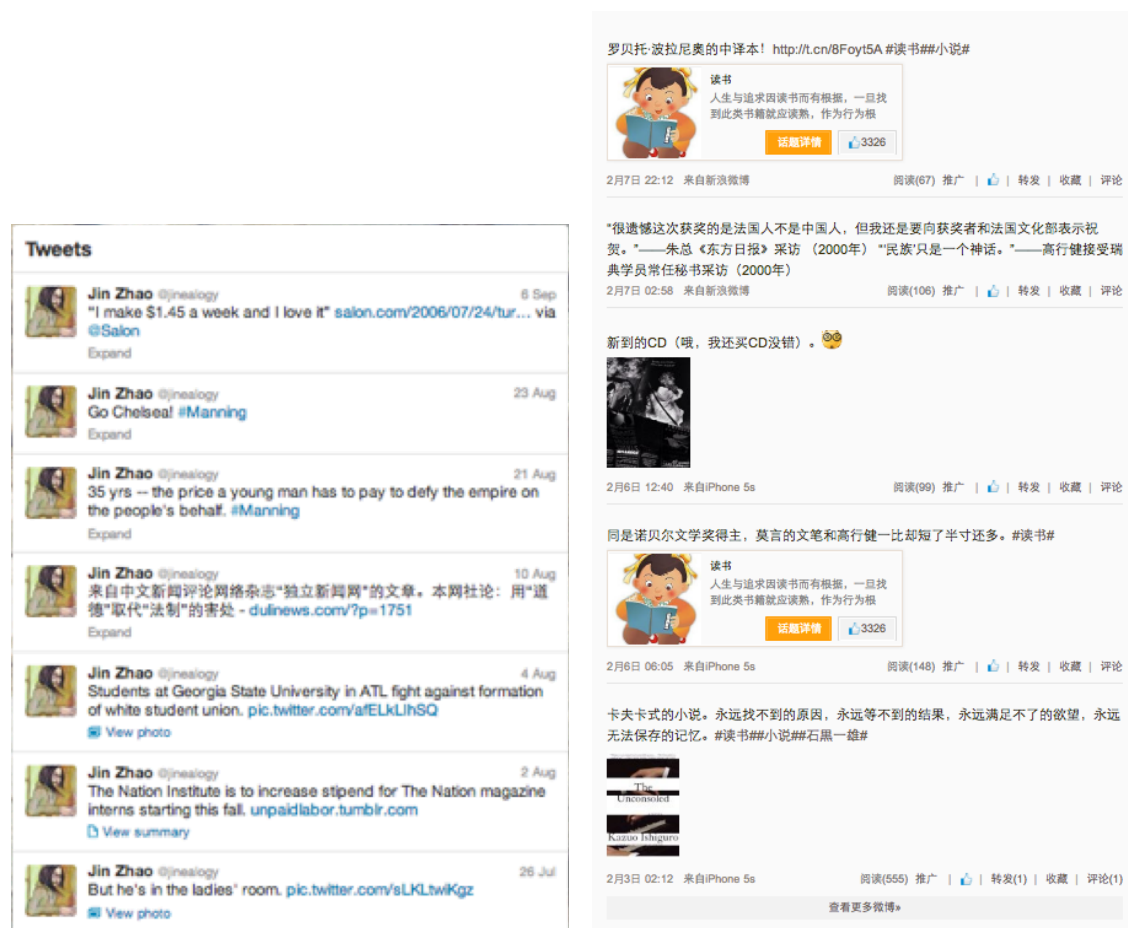


Figure 4-1 Screenshots: profile *timelines* on Twitter (left) and on Sina Weibo (right)

4.1.1 Follow

As SNSs, Twitter and Sina Weibo have mechanisms that afford users to connect. The core mechanism that allows users to connect in these networks is the *follow* feature. Unlike on many other SNSs such as Facebook and LinkedIn, where connections are made in both directions, Twitter's and Sina Weibo's *follow* feature is a one-directional subscription system. On both Twitter and Sina Weibo, the *follow* relationships are articulated publicly or semi-publicly (as Sina Weibo is not a completely open network) on the user's profile via the lists of *followers* and the *following* (Figure 4-2).

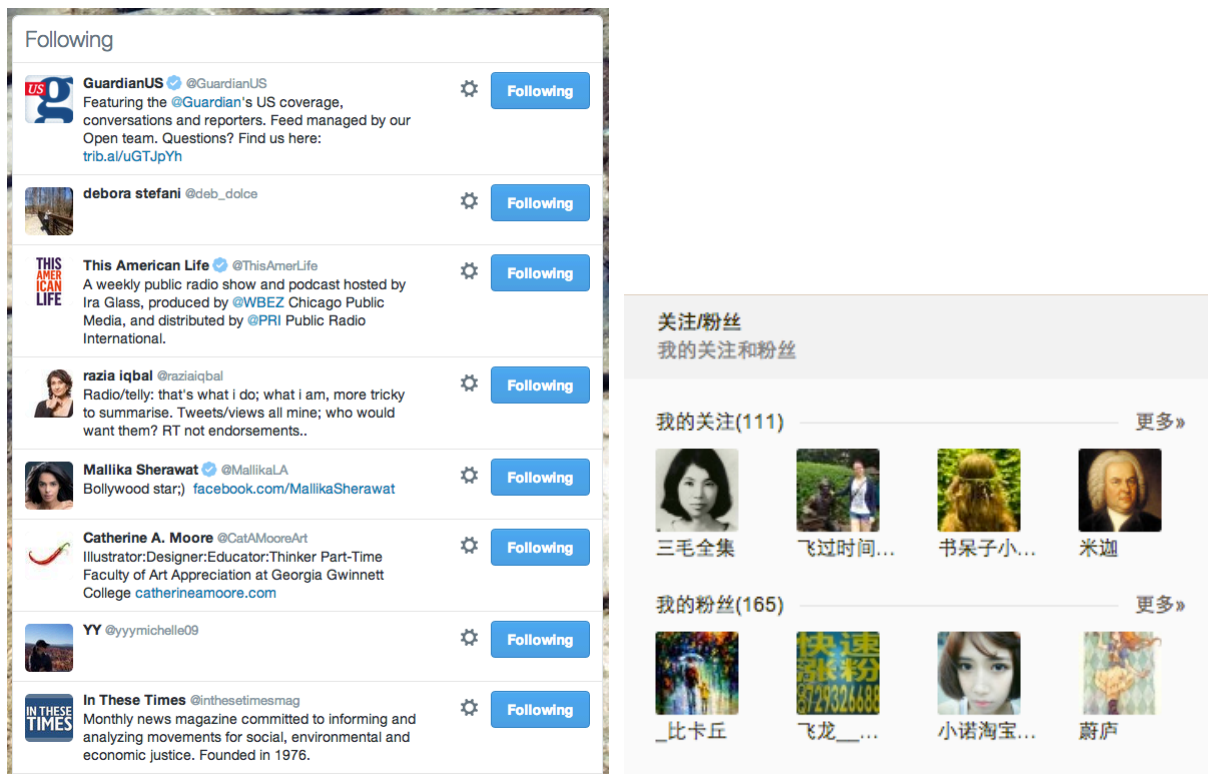


Figure 4-2 Screenshot: the flowers and flowing lists on Twitter (left) and on Sina Weibo (right).

Whether an SNS connects users bi-directionally or one-directionally has significant impact on the nature of the relationship between users established and maintained on the SNS. In a bi-directional system, both users must express consent in order for them to establish a connection. Normally, a user is required to send a request—such as a “friend request” on Facebook or a “request to connect” on LinkedIn—to the other user who she/he intends to connect in order to establish a connection. Only on the approval or conformation by the user who has received the request can a connection be established. Once a connection is established, both users will appear on each other’s contact list. In this bi-directional connection, as the term suggests, the users have equal status in the connection in terms of information flow, i.e., information flows both ways and both users are at once the senders and the receivers of content in an established connection. Because the connection is based on mutual consent, it to

a certain extent simulates the way personal relationships are established in real life. Therefore, bi-directional connections are arguably common among relationship-oriented SNSs such as LinkedIn and Facebook.

A one-directional system, on the other hand, allows users to establish connections unilaterally in the network. It allows users to subscribe to other users' content in the network without the content owner's consent. Once a connection is established, the information flows from one user to another, in the case of SNSs, from the *followed* to the *follower* or *fans* (“粉丝” or “*fensi*”) on Chinese SNSs. In other words, the role of sender-receiver is divided into two independent roles, the sender and the receiver. The user may assume either or both of these roles independently. Because no mutual consent is required to establish such connections, they tend to be less personal than the two-directional connections.

The one-directional *follow* feature is common among many content-oriented SNSs besides Twitter and Sina Weibo. Tumblr, Vine, Instagram, Pinterest, and Douban, a Chinese self-publishing SNS, all use the *follow* feature to connect their users. Sections of some social networking oriented sites, such as Facebook's “Pages,” have also adopted the *follow* feature.

This feature is nevertheless no new invention of SNSs. One of the predecessors of the *follow* feature on the web is the RSS that allows web users to automatically syndicate and download web data and receive updates. Built-in *subscription* systems used on blog networks, such as Wordpress and Blogger, and media sharing SNSs, such as YouTube, Flickr, and the Chinese video sharing sites Youku and Tudou, allow users to receive content from sources of their choice.

The metaphor of “subscription” directs us to traditional mass media’s content distribution system, such as newspaper, magazine, and cable television subscription. However, the *follow* feature on SNSs and the subscription service in traditional media have different functions indicative of the nature of the media in question. For traditional media and their online forms, subscription has two functions. First, subscription ensures content delivered to an exclusive audience that consists of often paying consumers. For instance, a portion of the content of many online newspapers and magazines today, i.e., the content behind the “paywall,” is available for subscribers. Second, subscription makes the reception of content more efficient and convenient for the audience. For instance, periodicals are delivered to subscribers regularly without separate incidences of purchasing.

This function of exclusion is partially translated into the designs of Twitter and Sina Weibo with significant change in its nature. On Twitter, the *follow* feature functions as a tool for exclusive content delivery only when the user account is set to be protected, in which case the *tweets* from this account will be only visible to approved *followers*. For the most part, however, because public *tweets* are open and free, users can access public content without *following* the users or even registering an account. Options such as browsing and search, using either Twitter’s internal search engine or external third-party engines, are available to non-*followers* and non-registered users to view the public *tweets*. On Sina Weibo, however, only the *weibos* from users with higher statuses are available to un-registered users, and the *follow* system is one way to distribute content to an exclusive audience.

The *follow* feature on Twitter and Sina Weibo also afford convenient content delivery as traditional subscription service does. Once a user *follows* another user, the *follower* will receive

in real time the content from the user they are *following*, without having to go to the source of the content to view it. In other words, preferred content is delivered to the user as it is published.

4.1.2 Interactions: @, #, and more

In both networks, in addition to reading content, users can interact with one another on the networks with their *tweets* or *weibos*. Using the “@” symbol, a *reply* or a *mention*, users on the networks are able to respond to and/or engage in a conversation with one another, attribute shared content to the original creator in a “*retweet*” (RT) or a *share* (“转发” or “*zhuanfa*”), or to draw a user’s attention to a *tweet* or a *weibo*. A *username* on Twitter thus is also called a *handle*. Figure 4-3 is an example of a *tweet* that contains a *username*, “@jinealogy.” Figure 1-4 is an example of a *weibo* that contains multiple *screen names*, “@白话话白” and “@超磨飞.”



Figure 4-3 Screenshot: a *tweet* that contains a *mention*



Figure 4-4 Screenshots: A *weibo* that contains multiple *mentions*

As seen in both of these examples, once a *handle* appears in a *tweet* or a *weibo*, it automatically becomes a hyperlink, which links to the *profile* page of the user account associated with this *username*. The user *mentioned* in a *tweet* or a *weibo* will be notified of the *mention*.

Retweet on Twitter and *share* on Sina Weibo are features designed for users to interact with each other by moving the content from others' *timelines* to their own *timelines* (Figure 4-5 and Figure 4-6). These features are very similar on the two SNSs, in that both afford users to connect with other users by sharing their content. This is also a defining characteristic that makes social media “social” in the sense that information is passed along from one member to another in a social network. The differences between the design of the *retweet* feature and the *share* features will be discussed further in Chapter Six.



Figure 4-5 A *retweet* on Twitter



Figure 4-6 A *shared weibo* on Sina Weibo

Another way for users to interact with each other is to participate in a discussion on a particular topic in the networks by using the “#” symbol to mark a topic in a *tweet* or a *weibo*. Such a phrase marked with the “#” symbol is called a *hashtag* on Twitter, or a *huati* (“话题,” meaning “topic”) on Sina Weibo.

Due to linguistic differences, the forms of *hashtags* on the Twitter and on Sina Weibo are slightly different. In English, spaces are used between words and sentences to demarcate the boundaries between these linguistic elements. On Twitter, a “#” symbol is used to mark the beginning of a *hashtag*, and a space or a punctuation that follows the *hashtag* marks its end. The phrase itself is written in the form of a word, i.e., with no space between letters, even if the

phrase contains more than one word. Figure 4-7 shows an example of a tweet that contains a *hashtag*, #RobertoBolano.



Figure 4-7 An example of a *tweet* that contains a *hashtag*

On Sina Weibo, however, two “#” symbols are used to mark the topic phrase, one to mark the beginning and the other to mark the end of the phrase. In Chinese, no space is used to demarcate the boundaries of words or sentences. Therefore, a topic phrase needs to contain two “#” symbols on either end to mark the boundaries between the topic phrase and the rest of the text. Figure 4-8 shows an example of a *weibo* that contains three *huatis*, “#读书#”, “#小说#,” and “#石黑一雄#.”

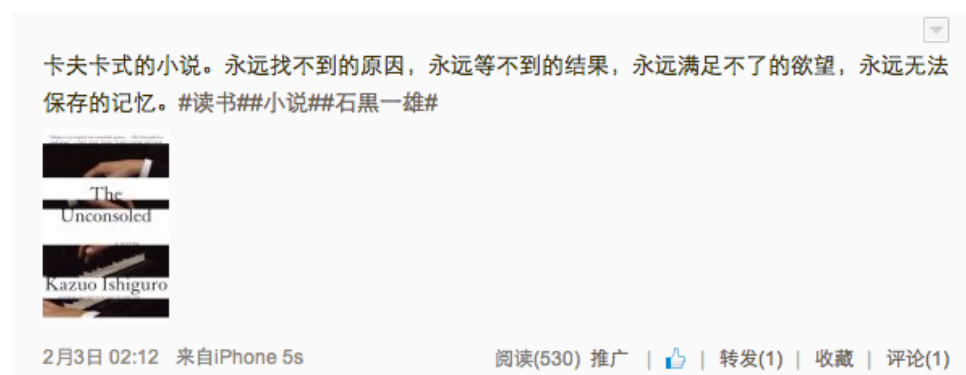


Figure 4-8 An example of a *weibo* that contains *huatis*

As shown in these examples on Twitter and on Sina Weibo, *hashtags* and *huatis* are presented in a *tweet* or a *weibo* as hyperlinks. On click, a user will be taken to a page where a *timeline* that consists of all the *tweets* or *weibos* containing the *hashtag* or the *huati* is shown. Compared to *mentions* and *retweets/shares*, *hashtags* connect users in a way that is looser yet

more communal, in that they do not directly connect individual users, but allow users to participate in conversations carried out in the entire network.

These are among the features essential to the identity of microblogging sites. I have discussed some nuanced differences existing in the design of these features between Twitter and Sina Weibo, but a more detailed discussion about some of these feature will follow in the next two chapters.

4.2 Users and networks

Twitter and Sina Weibo are networks of users, and their services depend on the users as contributing members of this network, i.e., users who create, publish, share, and consume content and interact with each other. In spite of the common key features, the two SNSs have distinctive design features with which the networks are constructed. A comparison of these distinctive design features reveals some aspects of the nature of these networks.

In the following subsections, I compare the features concerning the user networks—user membership, persona, connections between the users, and the accessibility of the networks.

4.2.1 User membership

Twitter and Sina Weibo require users to register for a user account, i.e., a network membership, to access all the key functions of the SNSs. However, how the membership systems are designed, how users obtain membership to the networks, and what rights and privileges they entail are quite different between the two SNSs. Broadly speaking, Twitter's

membership system is designed towards standardization where users have standardized rights, while Sina Weibo's is towards specification where users have different rights and privileges.

These tendencies are seen in two aspects of user accounts: the account type and the account status. The account type refers to the structural property of an account pertaining to a specific group of users based on the entities represented by the user accounts, such as private persons and various types of institutions. The account status refers to the structural property of an account pertaining to the position of a user account in the network in comparison with other users.

To begin with, Twitter offers a single account type to all users. The system does not classify user accounts structurally according to the entity an account represents, be it a private individual, a professional, a public figure, a fictional character, a business, a brand, a product, a government agency, an organization, a community, or a social/cultural/political movement. All user accounts, regardless of the nature of the entities they represent, are subject to the same rules, and have access to the same services in the system.

To register an account on Twitter, all users use a uniform register form (Figure 4-9). An email address is the only requirement for user account registration, and no distinction is made between individual account registration and business or institution account registration.

Join Twitter today.

Full name
 Enter your first and last name.

Email address

Create a password

Choose your username

☒ Keep me signed-in on this computer.

☒ Tailor Twitter based on my recent website visits. [Learn more.](#)

By clicking the button, you agree to the terms below:
 These Terms of Service ("Terms") govern your access to and use of the services, including our various websites, SMS, APIs, email notifications, applications, features, and content. [View Twitter's Terms of Service](#)

Printable versions:
[Terms of Service](#) · [Privacy Policy](#)


Create my account


Note: Others will be able to find you by name, username or email. Your email will not be shown publicly. You can change your privacy settings at any time.

Figure 4-9 Screenshot: Twitter's registration form

Accordingly, the profile setting form on Twitter is designed in a minimalist and generic way so that it applies to all users (Figure 4-10). The system provides a few information fields for the user to input basic information about the account, such as avatar image (AVI), header, name, location, and website. The "Bio" field is the space where the user can use to provide information about themselves and the content they publish. Because the "Bio" field is open, it applies to all users, and the information input in this field is completely open to the user. Except for the email address and the location, personal information provided by users in these fields cannot be used as data in search or for user classification.

Profile
This information appears on your public profile, search results, and beyond.

Photo  [Change photo](#) ▼
This photo is your identity on Twitter and appears with your Tweets.


Header  [Change header](#) ▼
Recommended dimensions of 1252x626
Maximum file size of 5MB
[Need help? Learn more.](#)

Name
Enter your real name, so people you know can recognize you.

Location
Where in the world are you?

Website
Have a homepage or a blog? Put the address here.

Bio
About yourself in 160 characters or less. 25

Facebook  [Connect to Facebook](#)
Post Tweets to your Facebook profile or page.
[Having trouble? Learn more.](#)

[Save changes](#)

Figure 4-10 Screenshot: the profile setting form on Twitter

The only limitation for the “Bio” field is that the content has to be 160 characters or fewer. This limitation is consistent with Twitter’s ethos characterized by fast and real-time information sharing in small chunks. It also limits the user’s ability to construct their persona by statement, and thus forces them to construct their persona and ethos through the content they share and the activities they engage in in the network.

Finally, the profile setting form includes a Facebook account linkage that allows the user to post simultaneously on Facebook. This feature shows the SNS's emphasis on the movement of information and its openness to connect to other networks outside.

The basic design and page layout of the profile page and the pages viewed by a user are standardized. Users have the same options for some page style customization, such as customized background image, background color, link color, and header photos, which are offered to all users regardless of the entities they represent. No user has additional options other than the ones offered to all users in the system.

Figure 4-11 shows the profile pages of an account for a business (IKEA USA), an account for a government body (the City of New York), a personal *non-verified* account (Jin Zhao), and a *verified* personal account (Louis C. K.). The profile pages of all these accounts share the uniform page layouts and the basic design style, such as the fonts, the sizes and the colors of the plain texts, i.e., non-links, with customized headers and backgrounds.

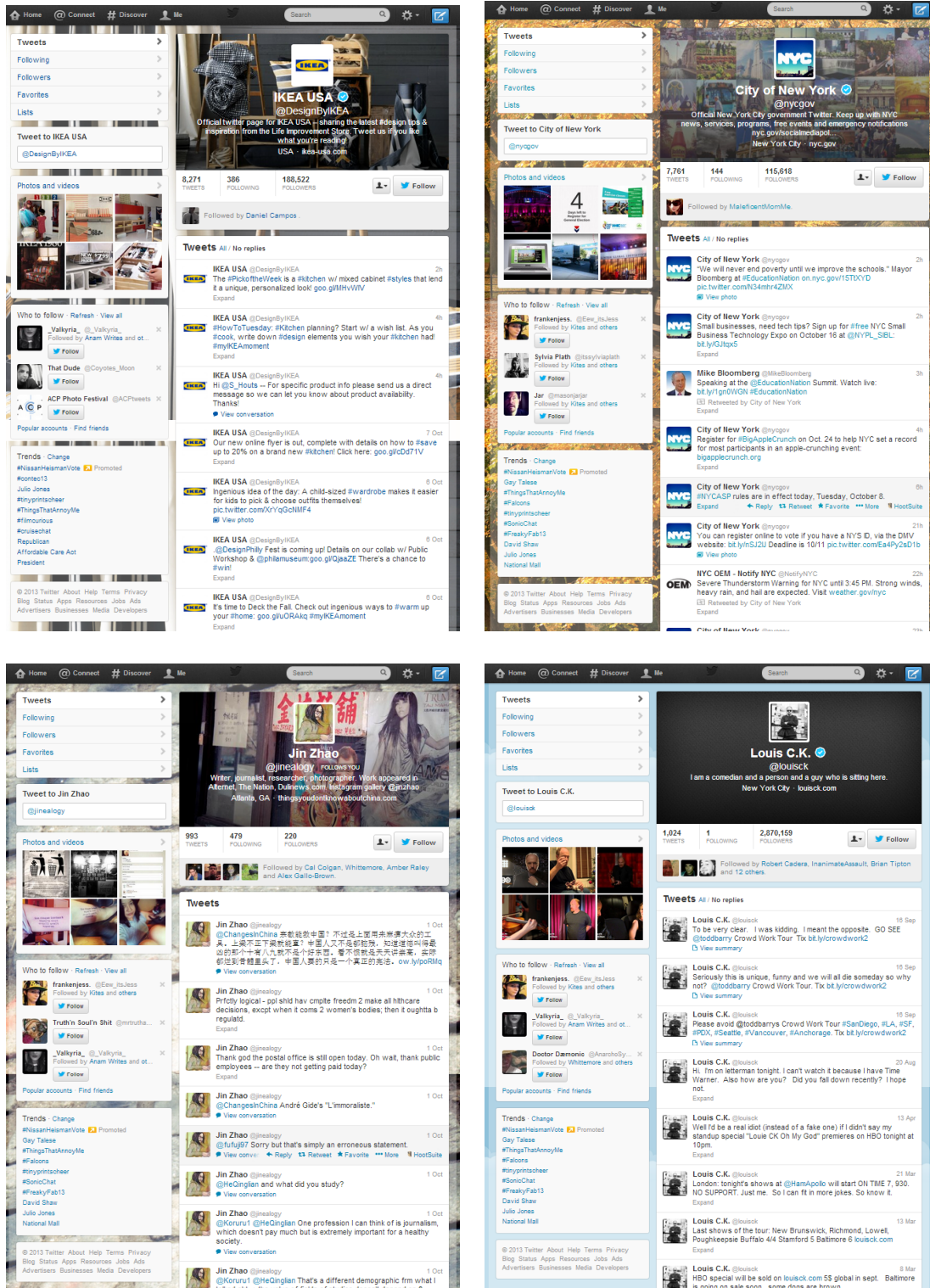


Figure 4-11 Screenshots: the profile page layouts of IKEA USA (upper left), the City of New York (upper right), Jin Zhao (bottom left), and Louis C.K. (bottom right)

More importantly, all registered users on Twitter are able to access the same features and services. No privilege is granted on the basis of the type of entities represented by the user accounts. In other words, accounts that represent a business, a government body, a public figure, a celebrity, and a private person are treated indiscriminately in the system.

In terms of the account status, Twitter's user accounts are categorized into two groups, the regular accounts and the *verified* accounts. All users register for regular accounts on registration, and Twitter verifies the authenticity of the identity of "highly sought after" accounts. Once an account is *verified*, a badge will be displayed on the user's profile and with the user account on recommended user lists, etc. A *verified* user also has access to features other users do not have, such as more filter options for *tweets* and notifications, the option to receive direction messages (DM) from all *followers*, and the access to account analytics ("FAQs about verified accounts," 2013).

How to obtain the verified account status on Twitter, however, is somewhat a mystery. Twitter has stated that the purpose of the user account *verification* is to "establish authenticity of identities of key individuals and brands on Twitter" and to "make it easier for users to find who they're looking for" ("FAQs about verified accounts," 2013). The SNS, however, does not accept requests for *verification* from the "general public" and is unclear about the requirements for verified accounts, which are, as the SNS claims, constantly updated ("FAQs about verified accounts," 2013). The SNS also repeatedly emphasizes that the "verification does not factor in follower count or Tweet count" ("FAQs about verified accounts," 2013). It has been reported in the media that Twitter's account verification is based on the likelihood of impersonation for an

account and the fund a user spends on advertising on Twitter (Abad-Santos, 2012; Delo, 2012). Twitter has not confirmed this information publicly.

The process of verification itself seems to focus more on educating the user how to use the platform effectively than “verifying” officially the identity of the user. The verifying process consists of a series of “quizzes” designed to help the user understand the best practice of using Twitter to increase the value of the account, and, implicitly, the value of the network. Figure 4-12 shows one of the quizzes and the explanation for the right answer. The user’s answers to these quizzes, however, do not affect their verification result, i.e., even if they give the incorrect answers, they are still able to be verified. The only verifying piece of information Twitter asks during this process is the user’s phone number. However, Twitter’s reason to ask for it, as it explains to the user, is to allow them to contact the user “in case there is security issue” with the account (Dash, 2013).

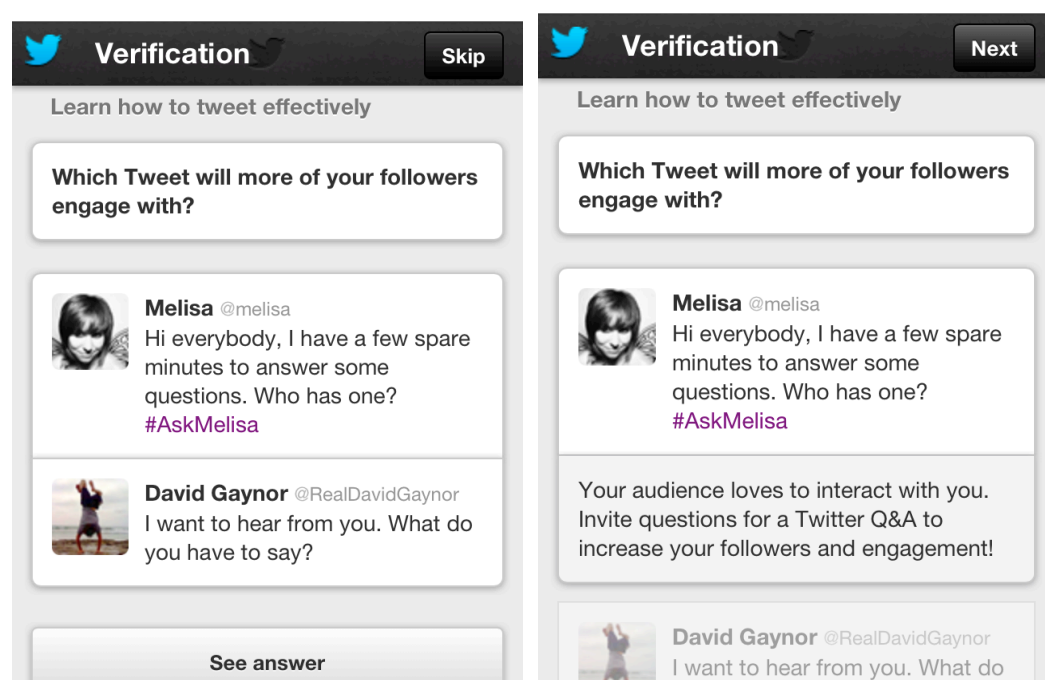


Figure 4-12 Twitter’s verification process (Dash, 2013)

Although advertisers on Twitter are more likely to be offered account *verification*, the SNS does not offer paid membership of any kind publicly. For instance, users cannot buy a high limit to the number of users they can follow. Twitter allows each user to follow 2,000 users on the network. Once that number is reached, Twitter will put a limit to the number of additional users this account can follow. The limit vary from user to user, based on the user's ratio of *followers* and *following* ("Following rules and best practice," 2013). According to Twitter, these limits are programed in the network's architecture, and cannot be lifted by Twitter. This is also a measure, in addition to its anti-malicious activity policies, to discourage users to aggressively *follow* other users for the purpose of gaining higher status in the network. These are some of the measures that Twitter utilizes to discourage users' manipulation of the system and maintain a relatively organic and authentic environment for users, by ensuring that the user's status is dependent, for the most part, on their activities and value to other users in the network.

Sina Weibo's user membership system is designed quite differently from Twitter. First of all, the system offers two distinct user account types at registration: business accounts and individual accounts. Business accounts are available to registered companies only, and individual accounts are available to all users including private persons and organizations.

The two different types of accounts require different registration forms (Figure 4-13). While it only requires a valid email address to register for an individual account, it requires a number of official documents, such as the business license and the official seal, and verification by the National Administration for Code Allocation to Organizations to register for a business account.

[个人注册](#) | [企业注册](#)

[个人注册](#) | [企业注册](#)

*** 邮箱:**

没有邮箱? [用手机注册](#)

*** 设置密码:**

*** 昵称:**

*** 验证码:**  [刷新](#)

立即注册

[新浪微博服务使用协议](#)
[新浪微博个人信息保护政策](#)
[全国人大常委会关于加强网络信息保护的决定](#)

企业认证所需条件
 1、持有营业执照及企业公章（财务章、合同章等无效）；
 2、能通过全国组织机构代码管理中心认证；
 3、企业官方微博名与营业执照上企业名不一致时需补充相关材料；
[点击查看企业认证攻略](#)
注意：非企业类用户如政府、媒体、机构等官方微博，请直接在[个人注册](#)处注册

*** 邮箱:**

没有邮箱? [用手机注册](#)

*** 设置密码:**

*** 企业官方微博名:**

*** 所在地:**

*** 验证码:** 

立即注册

[新浪微博服务使用协议](#)
[新浪微博个人信息保护政策](#)
[全国人大常委会关于加强网络信息保护的决定](#)

Figure 4-13 Screenshots: Sina Weibo’s registration forms for individual users (left) and for businesses (right)

On Sina Weibo, users have the option to provide much more personal information than Twitter. The information on the profile, required or optional, includes fields such as “basic information,” “contact,” “education,” “employment,” “tags,” “personalized domain,” and “mailing address” (Figure 4-14). The information users provide is stored as data and used for, for instances, the organization and search of user accounts. The fields of information that users can provide allow them more space to construct their identities in their profiles, as opposed to via content and activities in the network, and to connect their identities on Sina Weibo their offline identities.

基本信息

编辑

登录名

sab****rog@gmail.com 修改密码

昵 称

白话话白

真实姓名

所在地

海外 美国

性 别

女

性取向

✎ 马上填写自己的性取向,让合适的人找到你

感情状况

✎ 马上填写自己的感情状况,让更多的人了解你

生 日

✎ 马上填写自己的生日,可以收到更多的生日祝福哦

血 型

✎ 马上填写自己的血型,可以被更多同血型的人找到哦

博客地址

http://blog.sina.com.cn/wysteria

个性域名

http://weibo.com/baihuahuabai 申请微号

简介

没什么特别的。

联系信息

编辑

邮 箱

thingsyoudontknowaboutchina@gmail.com

QQ

✎ 马上填写你的QQ信息

MSN

✎ 马上填写你的msn信息

职业信息

编辑

公 司

The Nation 《国家》杂志

地区:

海外, 美国

职位:

自由撰稿人

教育信息

编辑

大 学

Georgia State University

English (PhD ABD)

Georgia State University

Communiation (MA)

北京第二外国语学院

英语系

标签信息

编辑

标签

摄影

华人

纽约

评论

新闻

国际

文化

政治

美国

自由

Figure 4-14 Screenshot: the user profile setting form for an individual user account on Sina Weibo

Business accounts have access to a number of features that are not available to individual accounts. For instance, compared to an individual account user, a business user has more options to design their profile page, marketing tools, and more analytic tools.

Sina Weibo also offers user verification service to both business and individual accounts. Although the user is required to provide official documentation of the business that the user account they intend to register represents, the account is not automatically verified on registration. To be verified, a business account user has to go through the process of verification independent from the registration process. The user is asked to fill out an application form with the business's information, provide official business documents, and follow a number of rules apropos of the account, such as the screen name and the AVI. Sina Weibo imposes a restriction to the number of verified account each business user can have. A business can only have up to three accounts, unless it has multiples branches or franchises, has a registered capital of more than 10 million *yuan*, or it is an official partner with Sina Weibo ("Business account verification," 2014).

User verification is also available to individual accounts. For private users to verify their accounts, they have to meet the requirements for the number of *followers* and the users they *follow*, the number of verified users in their "Friend circle," i.e., they follow each other, and the number of *weibos*. To verify their accounts, eligible users are required to fill out an application form and provide their government issued official identification documents. Private users can also choose to submit their employment documents, certificates, proofs of awards, and other documents that prove who they are ("Individual account verification," 2014). The verification requirements and process are similar for institutional users ("School government verification,"

2014; "Media account verification," 2014; "Organization account verification," 2014; "School account verification," 2014).

Verified accounts on Sina Weibo have a number of privileges that the default accounts do not have. First, they are marked with verified badges in different colors indicating the categories they fall into, e.g., private individual or organizational verified accounts. Second, verified users have access to more features, such as profile customization and marketing tools. Finally, the verified accounts are listed on the "Sina verified" subsite, categorized according to the industries or sectors they belong to, which resembles an online yellow page book.

One of the exclusive features for verified users is a more elaborate profile page design feature. As mentioned earlier, business accounts on Sina Weibo also have more options to customize their profile pages. The profile pages on Sina Weibo, therefore, unlike on Twitter, have very different designs (Figure 4-15 and 4-16).

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Figure 4-15 Screenshot: the profile page of IKEA on Sina Weibo



Figure 4-16 Screenshot: the profile page of the City of Shanghai on Sina Weibo

Besides the types of accounts, on Sina Weibo, users can also gain different levels of status for their accounts via paid memberships, which give them access to various levels of exclusive services. Users can purchase the “VIP” memberships on Sina Weibo to gain access to a

large number of “customization, status, function, and mobile privileges” (“Weibo VIP membership,” 2014) (Figure 4-17). For instance, a VIP user can retrieve their deleted *weibos*, can have more options to block users and content than regular users, and their *weibos* can be promoted to the top on other users’ *timelines*. Like Twitter, Sina Weibo has set the limit to the number of users a user can follow to 2,000. However, the VIP users can increase this limit up to 3,000 (“Following limit increase,” 2014). The VIP user accounts are also marked with a badge.

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Figure 4-17 Privileges for VIP users on Sina Weibo

Finally, Sina Weibo has a system that rewards users who are active on the SNS.

Depending on their activities, usually measured by the consecutive days of active use, the number of weibos, and the number of connected users, users gain different levels of status, and the higher the level they are, the more privileges they have in the network. For instance, the VIP users have six levels, and users on these levels have different privileges. As mentioned earlier, the higher a level a VIP user is on, the more users beyond the 2,000 limit they can follow, up to 3,000. Non-verified users also can gain a higher status by using the network more actively. When they reach a certain stage, they are invited to apply for the “Expert” status, which also come with some privileges and enables the user to be listed on the “Expert” chart. These levels of status are all marked with distinct badges.

Unlike Twitter, which does not accept requests for user verification, all these account types and statuses on Sina Weibo are available by request. Except for the VIP user status, all these other user types and statuses can be obtained free of charge. In fact, Sina Weibo aggressively encourages users to *verify* their accounts, to obtain higher statuses, and to purchase VIP memberships by emphasizing the prestige these statuses symbolize, advertising the privileges available for these options, and constantly prompts users to take action to obtain these statuses.

From these distinct membership systems on Twitter and Sina Weibo, two different networks emerge. Twitter’s uniform user type and a relatively flat structure of user statuses allow a relatively organic network to emerge. On this organic network, users’ places in the network are defined and constructed from bottom up through their content and activities, instead of arbitrarily defined from top down.

Although the effects of the network designs are beyond the scope of this dissertation, it is important to point out that this organicity of Twitter does not mean that each user in the network has the same power to influence the community, although the network is egalitarian in principle. Users carry their identities and their social statuses outside the network in the general society with them to the network. Consequently, the power to influence in the community is disparate among users in the network, and users form a sort of hierarchy based on their power of influence in the network, where information tends to flow from top to the bottom.

This hierarchy, however, is not structurally constructed by the system, i.e., the system of Twitter does not play an active role in structuring the network. Rather, the system acknowledges and responds to this hierarchy, and then reinforces it by offering the highly exclusive *verified* status to the powerful and influential users on the top of the hierarchy. As discussed earlier, two groups of users are likely to be *verified* by Twitter, the famous and the advertisers, i.e., those who have big names and those who have big money, and both groups, likely with significant overlapping, are powerful members of society. The *verified* status, thus, has become a symbol of prestige, which makes users' social status beyond Twitter visible in the Twitter community. By doing so, the system allows (and encourages) powerful members of society, individuals or organizations, to carry their power to the Twitter community, i.e., to copy their social status in a larger context to Twitter.

Further, when playing the role to monitor the network, such as *verifying* users and determining the limits to the number of followed accounts for users, Twitter tends to avoid appearing intrusive to users as much as possible. The system, and the administration behind it,

is invisible unless the need arises for it to interact with the users directly. This tendency is consistent with the system's *laissez-faire* practice in structuring the user network. These practices allow the system to maintain an ethos that emphasizes service rather than administration, and a role that resembles a service provider rather than an authority figure.

Sina Weibo, however, is an intricately different case. Unlike Twitter, the SNS plays an extremely active role in structuring the user network. With the various membership types and statuses, the complicated policies regulating them and the large number of privileges and exclusive services given to them, the system segments and orders users structurally to form hierarchies in the network, and plays the role of an authority. Ironically, although Sina Weibo's users are marked in a complicated symbol system that explicitly expresses the place of a user in the network, since such ordering is from top down and the system is complicated, it does not have the same *ethos* that Twitter's verified accounts have.

4.2.2 Network accessibility

As a network, Twitter connects not only registered users, but also Internet users who are connected to the World Wide Web. According to the company, "Twitter is a real-time network that connects you to the latest stories, opinions and news about what you find interesting," and "you don't have to tweet to enjoy Twitter" ("About Twitter," 2013). Twitter's public content, which accounts for the majority of its content, is accessible globally with very little restriction. Except in regions where the access to Twitter is restricted by law, any Internet user, whether a registered Twitter user or not, is able to view all the public content on Twitter, which includes texts, images, and links that Twitter users tweet or retweet, and users' profiles (a user's profile is always public, even when the account is set to be "Protected," an option that

will be discussed in further details later in this chapter). Twitter sets no limitation on the time or the number of tweets on a user's *timeline* visible to non-registered visitors, which means that all the public tweets are accessible to anyone at any time and no login is required.

Moreover, the public content on Twitter is searchable via the internal search engine—no login required—or external third-party search engines such as Google and Bing. A user can search for tweets on using information such as *usernames*, *hashtags*, or keywords. Twitter does not require users to log in to use its internal search engine, i.e., the search engine is available to users whether they have a Twitter account or not, and all the research results can be viewed without logging in as well.

Because of the sheer amount of *tweets* continuously generated by its users, despite its advanced search engine for users to narrow down the search results by setting the search perimeters using various attributes, a search can potentially yield a huge amount of results that can render the search almost meaningless. For this reason, for years, Twitter's search engine only displayed tweets going back about a week to limit the search results to a manageable number for users. In early 2013, Twitter started to include some, although not all, older tweets in its search results according to their relevance and impact in the network (Burstein, 2013).

In addition to accessing the network from the front end via the microblogging interface, Twitter allows users to access it via other interfaces as well. Twitter has published its application programming interfaces (APIs), with which users are able to access Twitter's data. These APIs are published under two lists. The REST APIs allow users to obtain Twitter's data within user-defined perimeters, and the Streaming APIs allow users to obtain data from in real-time.

Twitter's APIs are used widely by developers to create new programs, which are often called "mashups," i.e., applications built using multiple web application interfaces (Gomadam, Ranabahu, Ramaswamy, Sheth, & Verma, 2008). Mashups provide new value to users although basically the data they use are from existing web applications, for they "bring discrete data from services together and create more meaningful data sets" (Gomadam et al., 2008, p. 394).

Some of these mashups allow users to access the content on Twitter via other interfaces such as desktop applications to access Twitter, such as Twitterlicious (which affords access to Twitter from a PC), Twitterific (which affords access to Twitter from a Mac), and OutTwit (which affords access to Twitter via Outlook), web-based applications that integrate Twitter with other web-based services, such as Hootsuit (which affords access to multiple networks using one UI), Tweet Scan (which affords users to search content on Twitter), Twessenger (which integrates Twitter with Windows Live Messenger), Flotzam (which integrates Twitter with Facebook, Flickr, and blogs), iTunes to Twitter (which integrate iTunes with Twitter), Twitter Box (which affords access to Twitter in Second Life), and web applications and SNS that provide analytics services, such as Topsy, Favstar, and Twtrland.

Of course, Twitter's enormous database is not completely open to the public. However, the SNS has made the content itself, i.e., *tweets*, and some metadata associated with each *tweet*, such as the *username* and time of tweeting, open to users. Besides publishing APIs, Twitter also agreed to allow the Library of Congress to document all *tweets* and make them available and searchable to the public as public information. In an agreement signed between Twitter and the Library of Congress in 2010, Twitter agrees to provide the Library of Congress

the public tweets from its inception in 2006 to date and the real-time archiving of new public tweets since then ("Update on the Twitter archive at the Library of Congress," January 2013).

With these features in Twitter's user interface design and the supporting documentation, Twitter has limited the barrier to access to the minimum and made the network highly accessible to users across the web. Such, however, is not the case with Sina Weibo. Compared to Twitter, Sina Weibo supports a much more closed network.

The public content on Sina Weibo is not accessible to the general public. Rather, the degree of access is determined by many factors. For instance, most public content on Sina Weibo is only accessible to registered users, i.e., login is required to access. The *timeline* of an unverified account is completely inaccessible without login. When a user attempts to log onto the *timeline* page of an unverified account using its permanent URL, the system will automatically redirect the user to the register/login page, where the only visible information related to the account is the screen name of the account and the AVI. None of the content posted by this user account is displayed.

Some content posted from a verified account is accessible without login, which is a privilege that Sina Weibo uses to promote user verification. However, there are many limitations that make it almost impossible to use the SNS without login. For instance, the accessible content published by a verified user is very limited, usually only five or six *weibos*. The system prompts the visitor to log in as soon as they log onto the verified user's profile page and *timeline* (Figure 4-18).



Figure 4-18 Screenshot: the prompt to log in on the profile page of a verified user on Sina Weibo

Unlike on Twitter, where timelines are automatically refreshed to display older tweets, on Sina Weibo, both automatic refreshing and pagination are used to display *timeline*. The automatic refreshing of *timelines* has a limit and when the viewer reaches the limit, they will need to click onto the next page to view older *weibos*. When a visitor visits a verified user's profile *timeline*, however, the *timeline* does not automatically refresh to display older *weibos*. When the visitor reaches the bottom of the *timeline*, which is only four or five *weibos* long, the system prompts them to click on a line of text that reads "Read more weibos" to continue to view more *weibos*. However, on click, the visitor is taken to the register/login page (Figure 4-19). They are not able to view more *weibos* unless they log in.



Figure 4-19 Screenshot: prompt to read more *weibos* on the bottom of a *timeline* on Sina Weibo

Users can view some content in the “Hot” app, a Sina Weibo app (or sub-site), where trending topics on Sina Weibo are aggregated and displayed. Although login is not required to view this page, the publicly accessible content is, again, very limited. When a visitor clicks on the discussion of a trending topic, the only visible content is that on the first page, which contains the twenty latest *weibos* on the topic. To read further, the user is required to log in.

The search engine page works in a similar way. A user can search for *weibos* and users using keywords and screen names in Sina Weibo’s internal search engine without login, but on the result page, only the first four or five results are visible. On both the top and the bottom of the page, texts, along with links to the register/log-in page, are displayed to prompt the visitor to register or log in (Figure 4-20).



Figure 4-20 Screenshot: the prompt to log in on the search results page on Sina Weibo

Like Twitter, Sina Weibo publishes APIs as well. However, only REST and search APIs are published. The SNS does not publish streaming APIs. What this entails is that although users are able to access existing data, they are not able to stream *weibos* in real-time using Sina Weibo's published APIs. In addition, Sina Weibo has set much tighter limits on the amount of data users can obtain using its public APIs, which further restricts users' ability to access its data.

All these barriers to accessing its network and data reveal Sina Weibo's reluctance to open up its network. Compared to Twitter, Sina Weibo, as an information network, tends to control its access more tightly. While Twitter tends to push for an integrated web, Sina Weibo draws the boundaries between the "inside" and the "outside" clearly.

4.3 Content reception and privacy

Users on Twitter and Sina Weibo play two roles when they use the SNSs. A user is a source of information when they post content on the networks, and a member of the audience when they receive the content. Users alternate between these roles, sometimes, as in the case of *retweet*, very fast, when they engage with the content in the network and other users. How the SNSs' features afford users to assume these roles and what affordances are distributed to

these roles can reveal some of the biases of the two SNSs towards the modes of communication. In this section, to shed insight on the nature of communication the two SNSs support, I focus on the locus of the control over how content is delivered and received, i.e., how the designs of the SNSs afford users playing each of the aforementioned roles in communication to receive and deliver content in the networks. I argue that while Twitter puts the control of content reception on the audience's end, Sina Weibo tends to shift this power of control towards the source of the content. As Twitter pushes for public content for indiscriminate audiences, this bias is not prevalent in the design of Sina Weibo, which, on the other hand, provides the users who post *weibos* more elaborate features to deliver specified content to specified audiences.

4.3.1 Control of content reception from the audience

Twitter and Sina Weibo share several common core features, such as the *follow* and the *block* features, for users to manage what content they receive. These features put the control of content reception on the audience's end. A close reading of the design features in content delivery and reception on the two SNSs reveals that Twitter users have more control

Twitter's *follow* and *block* features afford users as the audience members to control content reception. As discussed in a previous section, the *follow* feature makes it more convenience for users to manage content reception without consent from the sources of the content, i.e., users who have published such content. The feature thus put the control of content reception in the audience.

It needs to be noted, however, that Twitter promotes content from paying advertisers on users' Home and other *timelines*, even if the user does not *follow* the advertisers' accounts.

Nevertheless, promoted *tweets* and users are clearly marked so as not to be confused with the user's preferred content.

Besides receiving content from the users the user *follows*, the user also receives *direct messages (DMs)* from these users. However, no other user outside the user's following list will be able to send *DMs* to the user. In other words, the DM system works like the Home *timeline*, except that while *tweets* are sent out to an indiscriminate audience (public *tweets*) or all the followers of the tweeter (protected *tweets*), *DMs* are directed to specified users. The underlying principle is that a user does not receive messages involuntarily.

The *follow* feature is essential to Twitter, because it is the instrument with which one-directional connections are established in the network. To ensure the principle of the one-directional connection, Twitter discourages aggressive behaviors, such as *following* and *unfollowing* a large number of users at a time, to solicit bi-directional connections by suspending the user who exhibits such behaviors or canceling their user account.

Another feature that affords users to control what content they receive is the *block* feature. The *block* feature is available on most SNSs to protect users from undesired users, although their specific policies vary. Twitter released the *block* feature by requests from the community early on in its history (Stone, 2007). A blocked user is denied certain interaction or communication with the blocking user. For instance, a blocked user cannot add the blocking user's account to their *lists*, have their *replies* or *mentions* visible on the blocking user's "Connect" page, *follow* the blocking user, or see the blocking user's profile on the blocked user's profile page as, for instance, a recommended user, or in the blocked user's *timeline* ("Blocking people on Twitter," 2013).

The *block* function forbids some users to access content published by a user by not allowing them to *follow* or to *list* the blocking user. In other words, in order for a blocked user to view the public content published by the blocking user, the blocked user will have to save the blocking user's username elsewhere or to have enough information to be able to search for the blocking user, and then the blocked user will have to navigate to the blocking user's *timeline* to view the content. This process creates some barrier for a *blocked* user to access the blocking user's content, but it does not prevent them from accessing the content completely. In fact, a blocked user can still post *replies* or *mentions* containing the blocking user's username. Other users can still see these *replies* and *mentions* on the blocked user's profile *timeline*, and the username of the blocking user is still hyperlinked to the blocking user's profile page (unless the user sets their profile as "protected"). These tweets also may still appear in search. Therefore, as long as the blocking user's *tweets* are public, the *block* function only discourages the access to blocking user's content by placing extra barriers on the side of the blocked user.

Essentially, the *block* feature on Twitter is designed for users as audience members to control their reception of content. In other words, the *block* feature on Twitter aims to protect users from being subject to undesirable content such as harassment and spam. In Twitter's words, it puts the undesired account "out of sight and out of mind so you don't have to see it anymore" (Stone, 2008). It is not, however, a feature that protects users' privacy, for it does not afford the user to decide who can see the content they publish.

On Sina Weibo, the *follow* feature is a main feature that affords users the ability to control the content they receive. In addition to the public *follow* features, Sina Weibo also offers an *invisible follow* feature, which allows the user to *follow* another user's *weibo* feed,

without the knowledge of that user. The user who *invisibly follows* another user does not appear on the other user's *follower* list, and the other user does not appear on this user's *following* list either. In other words, this feature affords users to keep their interest in some content completely private. Also, unlike Twitter, which discourages solicitation of bi-directional connections, Sina Weibo offers users a feature to invite other users to establish bi-directional connections.

Sina Weibo also have promoted *weibos* that appear on users' *timelines* even when the user does not *follow* the advertiser's account. Similar to Twitter, these *weibos* are also clearly marked. However, unlike Twitter, where users only receive DMs from the users they *follow*, Sina Weibo users receive direct messages from users they do not *follow*, i.e., from advertisers, Sina Weibo, or its partners. A user has to explicitly block such a user from sending them DMs in order not to receive more DMs from the blocked user.

This brings us to the blocking features on Sina Weibo. Unlike Twitter, where only one block feature is offered to users, on Sina Weibo, users can use a group of features to control the activities of other users in relation to themselves. The following is a list of these blocking features:

Blacklist: users on a user's blacklist cannot *follow* the user or *comment* on the user's *weibos*. The user does not receive *weibos* from the blacklisted users.

Block private message: a user can block private messages from a user whom the user *follows*. Once a user's private messages are blocked, they will go to the recipient's the inbox of "Direct messages from unfollowed users."

Blocked following list: a user can *block* a user they are *following*. Once blocked, the blocked user's *weibos* will not appear on the blocking user's Home *timeline*.

Blocked keywords (only available for VIP accounts): *weibos* containing the blocked keywords will not appear on the blocking user's Home *timeline*.

Blocked sources (only available for VIP accounts): *weibos* sent via blocked "sources," i.e., third-party apps or games, will not appear on the user's Home *timeline*.

On this list, the *blacklist* feature resembles Twitter's *block* feature. The other additional blocking features, by monitoring the received content without breaking connections between users, changed the affordances of the *follow* features on Sina Weibo. For instance, a user can block another user and stop receiving the blocked user's *weibos* on their own *timeline*, yet the blocking user can keep *following* the blocked user. Similarly, a user can put the private messages of a user they follow into the "Direct messages from unfollowed users," an inbox for unsolicited messages, which implies lower importance to the user, while still keeping the *follow* connection with the blocked user. What these design features afford, thus, is not simply the user's ability to manage information, but also the ability to manage relationships, which represents a break from Twitter's information-driven model of connection.

Some of these blocking features, such as the blocked keywords and the blocked sources, can be very useful for users to filter spam. Especially, *weibos* published via apps and games can cluster the *timeline* with low-value *weibos* to the user who receives them. Since apps and games are additional services on Sina Weibo, these low-value *weibos* are in fact promotional material for Sina Weibo. However, the features that allow users to block these *weibos* of advertising nature are only available for a certain elite group of users in the network. The rest

of the users in the network who do not have these privileges are subject to receiving greater amount of advertising than the VIP users.

4.3.2 Control of content delivery from the source

As options for privacy protection have become almost an imperative for all social media, Twitter and Sina Weibo, like many other SNSs, provides its users the options to control other users' access to the content they publish in the networks. The feature that affords users the control of access to the content they have published is the "Protected tweets" option.

The "Protected tweets" option allows users to restrict the users who can view their *tweets*. Once an account is protected, other users will have to request and be approved by the owner of the account in order to *follow* the user, and the *tweets* published by the protected account will only be accessible by these approved *followers*. Users who are not approved *followers* of a protected account will not be able to access the user's *timeline*, although they can still view the user's profile (Figure 4-21). In addition, unauthorized users will not be able to *retweet* the *tweets* from the protected account, the protected tweets will not appear in Twitter search or other public web search engines, *replies* that the protected account sends to users who are not approved *followers* will not be seen by those users, and the protected account cannot share permanent links to its tweets with anyone other than the account's approved *followers* ("About public and protected Tweets," 2013).



Figure 4-21 Screenshot: a user whose *tweets* are set to be protected viewed by an unauthorized user

The options of public tweets and protected tweets give users some control over who can receive their content and who can interact with them on Twitter, but the design of these options tend to encourage users to set their *tweets* as public and discourage them to protect their *tweets*. As mentioned earlier, public *tweets* is the default setting for all new accounts. To ensure an account to be protected, the user must click the checkbox before “Protect my Tweets” in the setting page, which discourages users to choose this option (Figure 4-22). This is because, first of all, by simply requiring active action from the user to set an account to be protected, the system discourages users to choose this option. Studies in web user behaviors indicate that any requirement for an additional action, even if it is only a click, is a barrier for users to take further actions and affects the usability of the website (Nielsen & Loranger, 2006). According to Nielsen and Loranger (2006), an average user does not always pay attention to all the available

information on a website. In web design, the default value is an effective way to avoid errors in cases users forget or have not noticed the options when they fill out a form on the web. In this case, negligence is translated in the system as a positive response to the default value, while it takes active decision making and action to negate the default value. Therefore, the default value set to be public on Twitter suggests Twitter's push for users to create public content, rather than restrict the reception of their tweets to a designated audience.

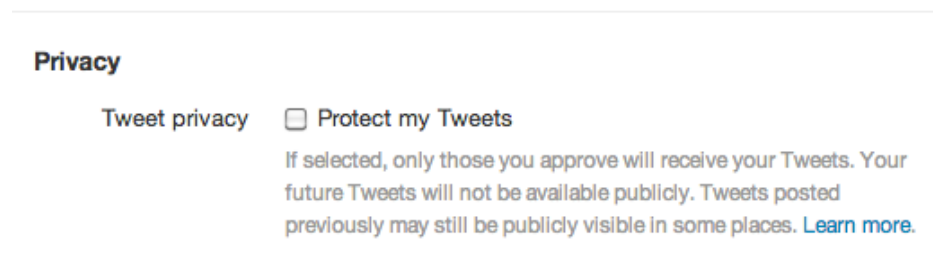


Figure 4-22 Screenshot: Twitter's privacy setting

By setting public tweets as the default value, Twitter also takes advantage of users' so called "status quo bias," a cognitive bias that prefers the current state of affairs than changes (Samuelson & Zeckhauser, 1988). The status quo bias is understood to be related to user resistance to new information system implementation (H.-W. Kim & Kankanhalli, 2009; Polites & Karahanna, 2012). In Twitter's case, the default value on the Setting page suggests (1) in theory, the setting option is the optimal choice for most users, and (2) in practice, the setting option is the most common choice among users. For a new user, choosing either of the options involves perception of risk and uncertainty. The default setting provides a context of the status quo, which the decision maker often sticks to (Samuelson & Zeckhauser, 1988). Twitter takes advantage of this "power of the defaults" to maximize its public content accessible by the widest audience (Nielsen, 2005).

Further, Twitter's all-or-nothing nature of the public/protected setting also discourages users from choosing the protected setting for it can greatly limit the value that the network can offer to users. The options of public and protected tweets, when chosen, apply to all future *tweets* from the account. Users cannot define different audiences for specified *tweets* or groups of *tweets*. In other words, users can only choose between all tweets public and all *tweets* being protected, and design their content to cater for their target audiences. In addition, the protected *tweets* setting restricts the user's ability to interact with other users. These restrictions quite diminish the whole experience of using Twitter as a social network. Because of the all-or-nothing options, and the restrictions put on the protected account, social media gurus generally suggest users not to set their accounts to be protected, for the pros of protecting the private content specifically for a particular audience seems to weigh less than the cons of limiting the potential of reaching the widest audience (Aase, 2010; Burke, 2012). The best way to protect privacy on Twitter, it implies, is for a user not to publish content that they deem to be private to the extent that they need to protect it from an indiscriminate audience.

Finally, Twitter biases towards public content by giving the public setting the privilege to overwrite protected setting. On Twitter, if an account is set to be public at one time, those *tweets* posted from this account, although not visible on the user's timeline, will always be publicly visible and searchable via internal and external search engines, even when the user change the account to be protected in the future. However, if an account is set from being protected to being public, all the *tweets*, including the previously protected ones will be made public. In other words, at any given point in time, if a *tweet* has been public, it will always

remain public, except for being visible on the user's *timeline*. On the other hand, a protected *tweet* has to be continuously protected to maintain its status as a protected *tweet*. Once there is a breakage, it loses its protection forever. Twitter's bias toward public content and open accessibility is evidenced by this privilege given to the public setting to overwrite the protected setting.

The design for Twitter's account settings regarding the public and protected content published on the network shows its bias toward communication based on publicly accessible content and indiscriminate audiences. This aspect of Twitter's identity has been confirmed and reinforced by the acceptance of users who choose this platform for communication, as statistics show. It is reported in 2012 that public Twitter accounts accounted for the majority of all Twitter account, which was about 88.2 percent ("An exhaustive study," 2012). The dominance of public content on Twitter further reinforces the "norm" of communication on Twitter, which resembles broadcasting and publishing more than personal emails or instant messaging.

Sina Weibo, while sharing some common features with Twitter with regard to account types, has a slightly different system that gives users more control over *who* can receive *what* from them. In other words, Sina Weibo provides more elaborate support for users as the source of content to control the destination of their messages.

Unlike Twitter, Sina Weibo does not provide public and protected options for account. Instead, the platform provides users options to classify their content as well as the audiences who can receive specified content.

On Sina Weibo, users can classify audiences by creating user groups for designated reception of specified content. These users groups include the *close friends circle* (密友圈) and a number of user *groups* (分组) (Figure 4-23).



Figure 4-23 Screenshots: the *close friends circle* tab (left) and *groups* tab (right) on the left menu on Sina Weibo's home *timeline*

A user can only create one *close friends circle*, which is a list of the user accounts with mutual approval. That means, to add a user account to the *close friends circle* of a user, the user needs to send a request to the other user, and once the other user approves the request, these two users will be in each other's *close friends circle*. A user can also create an unlimited number of user Groups, which are lists of user accounts curated by the user. To list a user account on a user's Group, the user does not need to have the approval from the other user, and the listing is not mutual but unilateral. A user can view all the content published within the *close friends circle* and any of the Groups on a separate *timeline*.



Figure 4-24 Screenshot: Sina Weibo's main *timeline*



Figure 4-25 Screenshot: Sina Weibo's *close friends circle timeline*

When a user posts content, she can choose from the options in a drop-down menu under the text box (Figure 4-25). The options include “Public,” “Only Me,” “Close Friends Circle,” and “Groups.” On clicking the “Groups” option, another drop-down menu will appear with all the groups by name (Figure 4-26). By choosing the “Public” option, the particular post will be

published publicly, i.e., it is visible to all the Sina Weibo users. The content published within the *close friends circle* and all the other groups will only be visible to the users in those groups.



Figure 4-26 Screenshot: options for publishing to specified audiences on Sina Weibo

Although Twitter also provides users a tool, the *lists* feature, to manage the user accounts they follow, it functions differently from Sina Weibo. While the user on Twitter can create a *list* of users, which can include the users this user does not *follow*, and a *timeline* is also designated to this *list*, i.e., the user can view all the *tweets* from the users on this list exclusively on one page, they cannot publish content to these users exclusively. In other words, the *lists*

feature on Twitter is a tool for users to manage content that they receive, rather than one for them to manage audiences or the reception of their content.

By providing users, or the content creators in this case, ways to slice their audiences into segments by manually selecting them, putting them into groups, and feeding them the content specific for them, Sina Weibo allows its users to move away from acting like a broadcaster in the network, for whom the common strategies to handle the challenge of communicating to a mass audience are designing the content specific enough so as to attract and cater for certain segments of the audience and at the same time keeping it generic enough so as to include as wide an audience as possible.² These features imply that Sina Weibo is based towards exclusive, audience-specific content and discriminated accessibility, which is a break from Twitter's indiscriminate accessibility and, arguably, a broadcast platform.

It needs to be noted that the features on Sina Weibo that afford users to manage the reception of the content they publish on SNSs are not unique to Sina Weibo or Chinese SNSs. For instance, another US-based SNS, Facebook, has the similar audience sorting features for content delivery. On Facebook, a user can create Friends lists, lists of contacts, i.e., Friends, according to criteria defined by the users, and set each individual Status Update to be visible to "Public" or one of the specified audiences—"Friends," "Only Me," "Custom," or any of the friends lists available. In fact, it seems that Sina Weibo's design of the friend-sorting features

² Segmenting audiences so as to distribute specific content for them is certainly an ideal sought after by broadcasters. However, historically, because of technological limitations, this ideal is at odds with another ideal of mass communication, which is dissemination of content to the widest audience possible. Because of the sheer scale of the "mass" audience, understanding each of the potential audience members, identifying their needs, and hand-picking content for them pose a huge challenge. With the advances in technology, automated "hand-picking" content for audience is becoming more of an attainable goal than ever before. Customized content gives the audience the illusion of interpersonal communication—the content is just for YOU, as if the content provider knows YOU. Mass media, thus, can be seen as taking a personal turn as web-based communication technologies are becoming increasingly sophisticated.

was inspired by Facebook, since the features were launched on Sina Weibo in September 2012, about a year after Facebook launched them (Boutin, 2011; "Sina Weibo integrate Close Friends function," 2013), and the wording of the features on Sina Weibo, *close friends circle*, appears to be based on the literal translation from the *close friends* feature on Facebook.

What is important about the resemblance between these features on Sina Weibo and those on Facebook is that they are crucial implications pointing to Sina Weibo's reservation of committing itself to being a broadcast platform like Twitter, which epitomizes "microblogging" in the United States. If that is true, as Chinese engineers and designers introduce microblogging as a new medium to Chinese users, they do not seem to have embraced, or to have expected Chinese users to embrace "this feeling that everything is public," i.e., indiscriminate dissemination of content—whole-heartedly, but with serious reservations. Facebook's personal touch in the control of content reception from the source of content, on the other hand, seems to be an appealing alternative.

4.4 Summary

In the comparison between the design aspects related to the structuring and functioning of the user networks between Twitter and Sina Weibo, a number of different traits have emerged that characterize the two SNSs. Before my further discussion, let me review and summarize these traits below:

Table 4-1 Summary of findings

<i>Twitter</i>	<i>Sina Weibo</i>
Singular/standardized membership type: <ul style="list-style-type: none"> - Standardized user accounts offer users access to the same services and functions. - Standard user profile page design with cosmetic customization. 	Specified membership types: <ul style="list-style-type: none"> - User accounts are classified based on the type of accounts such as individual and business accounts, which offer users access to different services, functions, and privileges specific to the type or category they belong to. - Customized user profile page design.
Biased towards a flat user network <ul style="list-style-type: none"> - User accounts have either of the two statuses, standard and verified user accounts. - Need-based and free user verification. - No official document is required for user registration or verification. 	Biased towards a hierarchical user network <ul style="list-style-type: none"> - User accounts obtain statuses on multiple levels. - Request-based user verification and some paid user statuses. - Official documents are required for business user registration and all types of user verification.
Open network access <ul style="list-style-type: none"> - The public content in the network is 	Controlled network access <ul style="list-style-type: none"> - The content in the network has

<p>accessible by Internet users.</p> <ul style="list-style-type: none"> - The design encourages users to set their tweets to “Public.” - Open APIs allow third-party developers to access and remix data in real time. 	<p>various levels of accessibility, none of which is globally open.</p> <ul style="list-style-type: none"> - Wider accessibility to content is a privilege reserved to user accounts of certain statuses. - Published APIs afford third-party developers access to data but with more limitation than Twitter; real-time streaming APIs are not available.
<p>Bias towards indefinite audience</p> <ul style="list-style-type: none"> - Users who tweet publically cannot segment their audience and do not have control over who can view their content. - Users’ power to control the content they receive is prioritized, i.e., they are not subject to unsolicited content except for the standard promoted content in their <i>feeds/timelines</i>. 	<p>Bias towards defined audience</p> <ul style="list-style-type: none"> - Users can segment their audiences and have some control of who can view the content they publish. - Users’ power to control the content they receive is more limited, i.e., they are subject to more unsolicited content via DM in addition to the standard promoted content in their <i>feed/timelines</i>.
<p>Content oriented</p> <ul style="list-style-type: none"> - The user profile has a limited number of 	<p>Identity and relationship oriented</p> <ul style="list-style-type: none"> - The profile has a large number of

<p>fields to input personal information and an open-ended user bio.</p> <ul style="list-style-type: none">- Users' personas tend to be shaped through content.- A single <i>block</i> feature affords control of content reception.	<p>fields of information to input specified personal information.</p> <ul style="list-style-type: none">- Users' personas tend to be shaped by users and their identities.- A set of <i>block</i> features afford users to maintain connections independent of content reception.
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5 THE SHAPES OF CONTENT: ORGANIZING CONTENT

As SNSs, Twitter and Sina Weibo contain—and in fact, their operation relies on—large amount of user generated content (UGC). How this large amount of content is organized, both structurally and on the pages, is essential to the users’ experience with the SNSs as information seekers or content consumers such as finding, searching, receiving, and consuming content. In this chapter, I examine the ways in which the two SNSs organize content, which include information architecture (IA), which focuses on, specifically, aspects such as organizational structure, navigation, and search, and the organization of information on the page, focusing on issues concerning page layout, the presentation of content, i.e., *timelines*, *tweets*, and *weibos*, the use of space, and graphics.

Before we embark on this task, it is important to set its scope. Twitter and Sina Weibo share core services and functions that center on providing a platform for users to form networks for information sharing. However, Sina Weibo, utilizing its user base, provides many additional services to users in the network, such as gaming and professional networking and thus the SNS has a broader scope than that of Twitter. For the scope of this dissertation, only the comparable sections on the two SNSs are addressed in this chapter.

Specifically, Sina Weibo contains many interconnected subsites, i.e., the sections of the SNS that are relatively independent usually under subdomain names, some of which are called “apps” (“*yingyong*” or “应用”). The global navigation of Sina Weibo indicates that the SNS contains four modules:

First, the “Home” module includes customized content and tools for publishing and receiving content. The “Profile” section is also included in this module. This can be considered

the core module for Sina Weibo, i.e., the “microblogging” module, and is the focus of the discussion in this chapter.

Second, the “*Huati*” module (which means “topics”) is a subsite that provides a space for users to access popular content in the network by topics, a function somewhat comparable to the “Trends” list on Twitter. This module is also considered a core module since it supports the user to access the content of the microblogging site, i.e., *weibos*.

Third, the “Apps” module is a subsite for users to browse and search for Sina Weibo’s built-in apps, i.e., subsites, or third-party apps, i.e., apps for mobile devices, which are independent from Sina Weibo. Sina Weibo’s built-in apps resemble subsites, i.e., sections under the Sina Weibo domain that provides information not necessarily related to *weibos*. Some of these apps provide functions comparable to sections on Twitter—for instance, Sina Weibo’s app “Hall of fame” displays information similar to Twitter’s “Who to follow” section—although the interface designs of these apps are far more complex than Twitter’s minimalist design as shown later in this chapter. Apart from the built-in apps, this module also functions as an app store for third-party mobile apps, which is not a service that Twitter offers. Considering the scope of this dissertation, further discussion will only cover the apps whose functions comparable to sections on Twitter, i.e., apps related to the core microblogging service of Sina Weibo.

Finally, the “Game” module is a subsite for online games. This module will not be discussed in detail in comparison with Twitter because Twitter does not offer comparable service, and, although the services in module are offer to Sina Weibo’s user network, they are not directly related to the core microblogging service.

The following discussion focuses on the designs of the comparable sections on Twitter and Sina Weibo, namely, the sections related to information sharing in the form of microblogging. It needs to be pointed out, however, that although some of the sections on Sina Weibo are not included in the discussion because they are not directly related to the communication of information in the microblogging form among the users, it is important to recognize their existence and how they affect the identity of Sina Weibo as a SNS compared to Twitter, a point that will be revisited in the final “Conclusion and Discussion” chapter.

5.1 Overall organizational structure

As SNSs, Twitter and Sina Weibo both host large amounts of user generated content (UGC), and both of them use hierarchical structures and the database model to organize information. However, their different approaches to how information is organized and labeled reveal very different underpinning design purposes as well as philosophies.

According to U.S. Department of Health and Human Services, (“Organization structures,” 2014), the hierarchical structure is a top-down organizational structure that is also sometimes referred to as the tree structure. The information is structured from broader categories displayed on parent pages to more specified categories displayed on child pages. This is a structure that users are familiar with, based on their experience with organizational structures in their social lives and experience with traditional SNSs that do not rely on UGC. The database model is a bottom-up approach to web information organization that utilizes the content’s metadata, an approach which “facilitates a more dynamic experience generally allowing for advanced filtering and search capabilities as well as providing links to related information in the system that has been properly tagged” (“Organization structures,” 2014). The database model

is especially effective in organizing large amount of content, and thus it is a preferred model for information organization on SNSs that heavily rely on UGC. Information organized using the database model is often presented in a flat linear structure in a certain order, e.g., time, relevance, frequency, etc. One version of this linear structure on many SNSs is the “stream” structure of UGC, where content is organized in a real-time reverse-chronological order.

Timelines on microblogging sites, for instance, are a type of content stream.

Both the hierarchical organizational structure and the stream structure are represented in the design of Twitter and Sina Weibo. As SNSs, Twitter and Sina Weibo heavily rely on UGC, which is not only large in amount but also constantly growing volumes. The SNSs both use hierarchical structures on the higher level of structuring information, and the stream structure in organizing content on the lower level, i.e., *timelines*, lists, and charts. This mixed approach to organizing information takes advantage of the users’ familiarity to the hierarchical structures and the dynamic content streams to organize UGC in organic ways to better fit the user’ individual needs.

Despite these commonalities, however, Twitter and Sina Weibo’s designs reveal important differences in the SNSs approaches to how information is organized. The design Twitter leans towards an *a posteriori* organizational approach that prioritizes a narrow and shallow hierarchical structure with minimal and broad classification of information and at the same time heavily relies on content streams to organize UGC.

Sina Weibo appears to lean towards an *a priori* approach that favors broad and deep hierarchical structures characterized with specific classification of information. At the same time, the content streams buried deeply in these hierarchical structures, the design does not

take full advantage of the immediacy and fluidity they afford the users when they engage with the content.

Twitter's hierarchical structure is both shallow and narrow. All the information is organized in a three-level shallow hierarchical structure (Table 5-1). Twitter has four first-level parallel sections that are represented in the main menu, "Home," "Connect," "Discover," and "Me." In addition, the "Search results" page, accessible via the search engine in the global navigation bar, can be considered an additional first-level section parallel to the four main sections on the main menu. Each first-level section contains different number of pages ranging from a single page to a number of second- and third-level pages. The "Home" section, for instance, contains only one page, where the main *timeline* is displayed. All the other three sections contain second- and third-level pages. The entire SNS has none of the "deep pages" whose access requires more than three clicks of mouse, and except for the "Popular accounts" page, all the pages have six child pages or fewer.

Table 5-1 Twitter's hierarchical structure

Home	Connect	Discover	Me	Search results
Tweets	Interactions <ul style="list-style-type: none"> • All • People you follow Mentions <ul style="list-style-type: none"> • All • People you follow 	Tweets Activity Who to follow Find Friends Popular accounts <ul style="list-style-type: none"> • Music • Sochi • Sports 	Tweets Following Followers Favorites Lists <ul style="list-style-type: none"> • Subscribed to • Member of 	Everything People Photos Videos News Advanced

		<ul style="list-style-type: none"> • Photography • Twitter • . . . (28 in total) 	Photos and videos*	Search
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* The link to the Photos and videos gallery is not presented in the submenu. Rather, it is presented in a content box beneath the submenu under the sidebar on and only on all the pages in the “Me” section.

Twitter heavily relies on content streams to organize the content. On almost all pages, content is organized and presented in *timelines* and lists, and the user does not need to click deep into the SNS’s hierarchy to access to these content streams.

Compared to Twitter, Sina Weibo’s site structure is much more complex and favors broad and deep hierarchical structures rather than the more organic content streams. As mentioned in the introduction of this chapter, Sina Weibo has four main modules, “Home,” “Huaiti,” “Apps,” and “Games.” The “Home” module contains much of the core functions and content comparable to a large part of Twitter. However, the hierarchical structure of this module is much deeper and broader than that of Twitter. The information in this module is organized in a five-level structure (Table 5-2), which is three levels deeper than that of Twitter.

Table 5-2 The hierarchical structure of Sina Weibo’s Home module

Sections	Pages
Home	Home (首页) Weibos (微博) <ul style="list-style-type: none"> • All (全部) • Original (原创) • Photos (图片)

	<ul style="list-style-type: none"> • Videos (视频) • Music (音乐) <p>Notifications (消息)</p> <ul style="list-style-type: none"> • Mentions (提到我的) <ul style="list-style-type: none"> - Weibos with @mentions (@我的微博) <ul style="list-style-type: none"> ♦ All users (所有人) <ul style="list-style-type: none"> ▪ All users (所有人) ▪ Following (关注的人) ♦ All Weibos (所有微博) <ul style="list-style-type: none"> ▪ All weibos (所有微博) ▪ Original (原创) - Comments with mentions (@我的评论) <ul style="list-style-type: none"> ♦ All (全部) ♦ Following (我关注的人) • Comments (评论) <ul style="list-style-type: none"> - Received comments (收到的评论) <ul style="list-style-type: none"> ♦ All (全部) ♦ Following (我关注的) - Sent comments (发出的评论) • Favorites (赞) • Private messages (私信) • Private Message from non-following (未关注人私信) <p>Saved weibos (收藏)</p> <p>Posted to me (发给我的)</p> <p>Friends circle (好友圈)</p>
Groups (分组)	<p>Special following (特别关注)</p> <p>Weibos (微博)</p> <ul style="list-style-type: none"> • All (全部) • Original (原创) • Photos (图片) • Videos (视频)

	<ul style="list-style-type: none"> • Music (音乐) <p>Organizations (机构)</p> <p>Weibos (微博)</p> <ul style="list-style-type: none"> • All (全部) • Original (原创) • Photos (图片) • Videos (视频) • Music (音乐) • <p>A List of user defined groups</p>
Official apps (官方应用)	A list of links to individual apps (11 links)
Recently used apps (最近使用)	A list of links to individual apps (10 links)
User	My home page (我的主页)
	<ul style="list-style-type: none"> • Weibo (微博) • Original (原创) • Photos (图片) <p>Weibo (微博)</p> <ul style="list-style-type: none"> • All (全部) • Original (原创) • Photos (图片) • Videos (视频) • Music (音乐) • Tags (标签) • Privacy (查看权限) • Scheduled weibo (定时微博)
	User profile (个人资料)
	<p>Photo Albums (相册)</p> <ul style="list-style-type: none"> • Albums (相册专辑) • Photo wall (图片墙) • My favorites (我赞过的)

	<ul style="list-style-type: none"> Popular Photos (人气图片)
	Favorites (赞) <ul style="list-style-type: none"> Music (音乐) <ul style="list-style-type: none"> Favorites (赞过) Listened (听过) Books (读书) Places (地点) Games (游戏) Photos (图片) Favorited weibos (赞过的微博)
	Places (足迹) <ul style="list-style-type: none"> Signed in recently (最近签到过) Signed in in the last 6 months (半年前签到过) Favorites (赞过)
	Music (音乐) <ul style="list-style-type: none"> Favorites (赞过) Listened (听过)
	Books (读书) <ul style="list-style-type: none"> Favorites (赞过) Recommend (推荐)
	Movies (电影) <ul style="list-style-type: none"> Favorites (赞过)
	Topics (话题)
	Renmai (微人脉)*
	More (更多)**
	(Viewed by non-owner of account) Following (关注) & followers (粉丝) <ul style="list-style-type: none"> Her following (他/她的关注) Our following (共同关注) Her followers (他/她的粉丝) Her followers who are followed by me (我关注的人也

	关注他/她)
	(Viewed by account owner) Connection center (关系中心) <ul style="list-style-type: none"> • Following (关注) <ul style="list-style-type: none"> - All following (全部关注) - Friend circle (朋友圈) - Special following (特别关注) - Group 1 - Group 2 - Group 3 - ... • My recommendations (我的推荐) • Subscriptions (订阅) • Invisible following (悄悄关注) • Followers (粉丝) • Invite friends (邀请站外好友) • Search users (找人) Recommendations for you (猜你喜欢)
Search results	All Weibos People Photos Apps

* “Renmai” is an app which can be seen itself as a SNS for professionals, very much like LinkedIn.

** The modules listed above are the default modules. More modules that connect to apps appear on users’ profile, which are customized based on the user’s activities using these apps.

This deep structure is to accommodate Sina Weibo’s specific classification of information. Compared to Twitter, information on Sina Weibo is categorized into smaller

groups and displayed on separate pages. For instance, the “Home” page, which is the landing page, displays the main *timeline*. However, unlike on Twitter, where a single timeline displays all the tweets, on Sina Weibo, in addition to the main *timeline*, “All,” *weibos* are categorized into four groups, “Original,” “Photos,” “Videos,” and “Music,” are displayed in separate *timelines* organized in reverse-chronological order. Although Twitter also provides similar filters for different types of *tweets* on the “Search result” page (discussed further below), these filters are not applied to the main *timeline*. Instead, the main *timeline* on Twitter is organized in a singular scheme, i.e., reverse-chronological order.

Similarly, Sina Weibo’s “Connect” section not only has more types of connections or interactions between users, but displays each category on separate pages. Twitter has only two categories for the “Connect” section, “Interactions” and “Mentions,” and each has two subcategories, “All” and “People you follow.” Sina Weibo, however, has four levels of child pages in this section, with categories such as “Weibos with mentions,” “Comments with mentions,” “Received comments,” “Sent comments,” and “Private messages from non-following,” which reflects the complex user connections embedded in Sina Weibo’s network design as discussed in the previous chapter.

The “User” section on Sina Weibo is comparable to Twitter’s “Me” section. However, the content on Sina Weibo is more specifically categorized and some content is unique compared to Twitter, which renders the structure of Sina Weibo’s “User” section a fairly broad one. Whereas Twitter has only three parallel pages to display the content, Sina Weibo has more than thirty pages in a three-level structure to display the content, including *tweets* and interactions such as *favorites*. Many of these child pages, such as “Photo albums,” “Places,”

“Music,” “Books,” “Movies,” and “Topics,” are connected to Sina Weibo’s in-house apps, i.e., subsites, and can be open in a whole different section on the SNS. In addition to the default apps for a regular user as listed above, depending on the user’s status and the apps they use, more tabs for apps can be added to the menu on the pages in the “User” section.

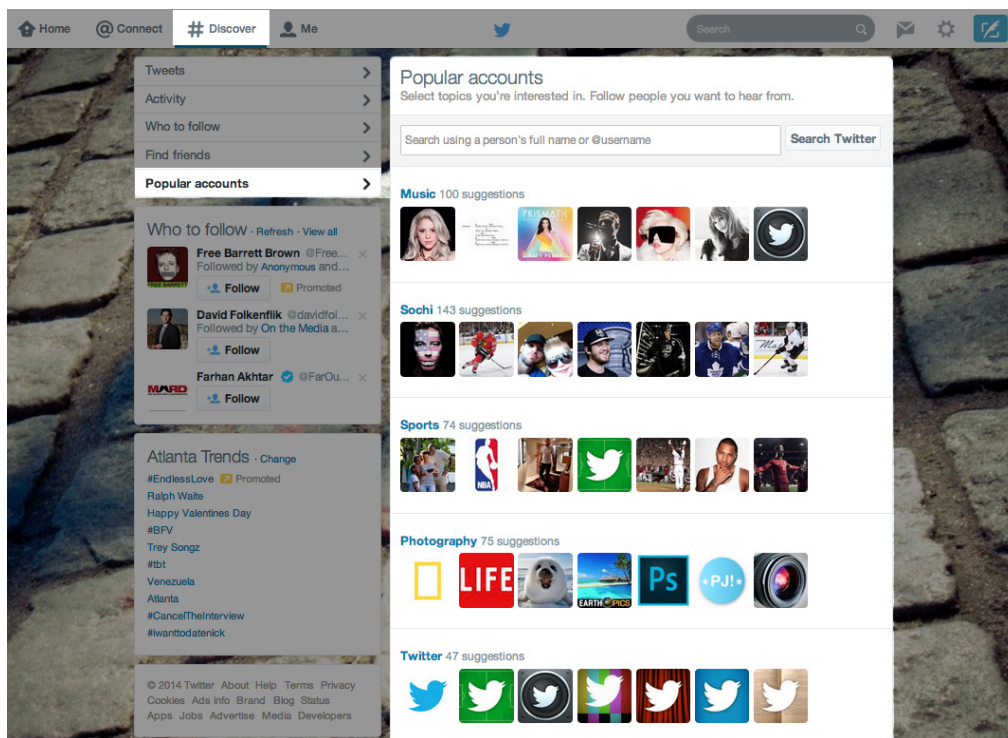
Some content in the “User” section varies depending on the user statuses, i.e., whether the viewer is the logged-in owner of the user account. When viewed by a visitor, i.e., non-owner of the user account, the “User” section contains a child page for “Following and followers.” This page is accessible, however, via the two links, “Following” (“*Guanzhu*” or “关注”) and “Follower” (“*Fensi*” or “粉丝”) under the avatar image, instead of via the main tabs as the content pages are. Nevertheless, the “Following and follower” page is displayed in the same content area as other content.

When viewed by the logged-in owner of the user account, however, the “Following and followers” page is replaced with a whole section of content named the “Connection center” (“*Guanxizhongxi*” or “关系中心”) displayed outside the template of the “User” section. This section contains a number of child pages for different categories of *following* and *followers*, such as “Friend circle” (“*Haoyouquan*” or “好友圈”), “Special following” (“*Tebieguanzhu*” or “特别关注”), or “Invisible following” (“*Qiaoqiaoguanzhu*” or “悄悄关注”), which, again, reflects Sina Weibo’s complex design of the network that consists of complex types of user connections.

Finally, it is important to take note of the structure of some of Sina Weibo’s apps and subsites, for they afford similar user needs as some of Twitter’s features and thus are essential parts of the SNS. The structures of these apps are far more complicated than the sections on Twitter that have similar functions. For instance, one of Sina Weibo’s subsites is “Sina verified”

(“Xinlangrenzheng,” or “新浪认证”), where the user can browse or search for popular verified accounts on Sina Weibo.

This subsite is only one of the several that allow the user to browse other users in categories, a function comparable to that of Twitter’s “Popular accounts” section. However, the designs of the subsite and Twitter’s “Popular accounts” are quite different. On Twitter, the “Popular accounts” section has one level of classification of users, which are organized in lists, i.e., flat streams, whose content is updated constantly (Figure 5-1).



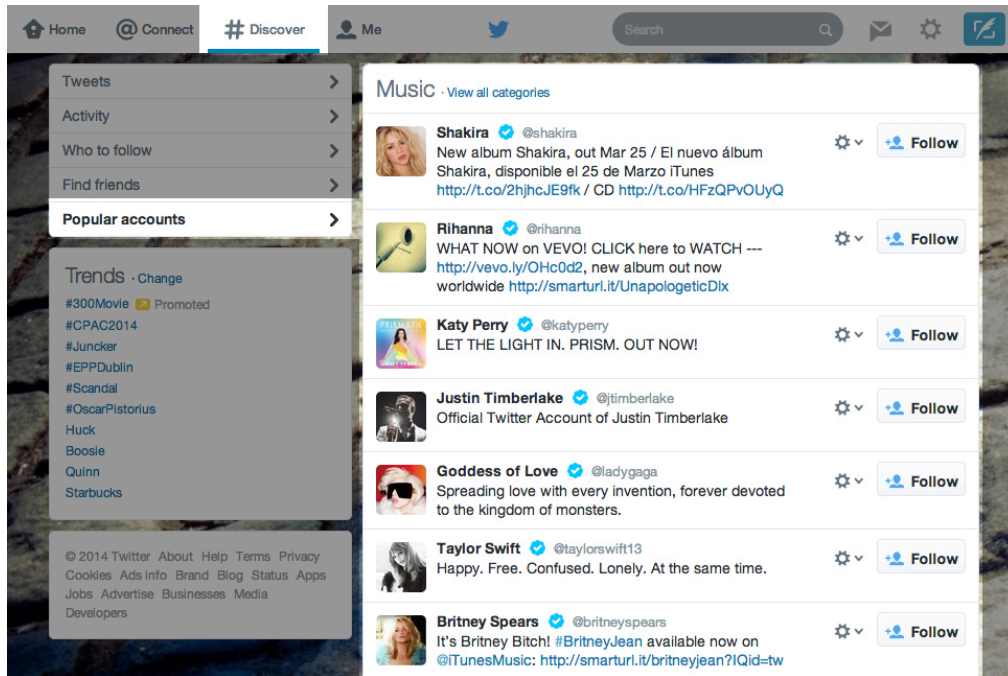


Figure 5-1 Twitter’s “Popular account” page and a child page

The “Sina verified” subsite, however, is a broad and deep hierarchy, which itself contains several sections that are presented by Sina Weibo as individual apps, and each of them is a constructed in a hierarchy structure. It has seven first-level sections, which are also presented as individual apps on Sina Weibo (Table 5-3).

Table 5-3 The structure of “Sina verified” subsite

Main apps	Subsections/children pages
Hall of fame (名人堂)	Industries <ul style="list-style-type: none"> • Entertainment (娱乐) <ul style="list-style-type: none"> - All (全部) - Internet sensations (网络红人) <ul style="list-style-type: none"> ♦ All (全部) ♦ Internet sensations (网络红人) - Other (其他) <ul style="list-style-type: none"> ♦ All (全部) ♦ Other (其他) - Entertainment companies (娱乐行业公司)

	<ul style="list-style-type: none"> ♦ All (全部) ♦ HR/administrative (人事 / 行政) ♦ Finance (财务) ♦ System/IT (系统 / IT) ♦ Tech/R&D (技术 / 研发) ♦ Assistants/Secretaries (助理 / 秘书) ♦ Legal (法务) ♦ Business/development (商务 / 拓展) ♦ Sales (销售) ♦ Customer service (客户服务) ♦ Buyer/trader (采购 / 贸易) ♦ PR & media relations (公关 / 媒介) ♦ Marketing (市场 / 营销) - Entertainment industries (娱乐产业) <ul style="list-style-type: none"> ♦ All (全部) ♦ Events/publicity (策划 / 宣传) - Entertainment executives (娱乐高管) <ul style="list-style-type: none"> ♦ All (全部) ♦ Entertainment executives (娱乐高管) - Music (音乐) <ul style="list-style-type: none"> ♦ All (全部) ♦ Pop singers (流行歌手) ♦ Musicians & bands (音乐人 / 乐队组合) ♦ Classical singers (美声歌手) ♦ Folk singers (民族歌手) ♦ Indigenous music (原生态) - Film & TV (影视) <ul style="list-style-type: none"> ♦ All (全部) ♦ Actors (影视演员) ♦ Directors (影视导演) ♦ Writers & producers (编剧制片) ♦ Voice actors (配音演员) ♦ Postproduction (后期制作) ♦ Critics (娱评人) ♦ Agents (经纪人) ♦ Child stars (童星) • Sports (体育) • Media (传媒) • Finance (财经) • IT & communication (IT、通信) • Literature & publishing (文学出版)
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	<ul style="list-style-type: none"> • Real estate (房地产业) • Auto (汽车) • Government (政府官员) • Arts & humanities (人文艺术) • Game & animation (游戏 / 动漫) • Military & aviation (军事航空) • Non-profit (公益行业) • Parenting (育儿) • ... (34 in total) <p>Locations</p> <ul style="list-style-type: none"> • Anhui <ul style="list-style-type: none"> - All - Hefei - Wuhu - Bengbu - Huainan - Maanshan - Huaibei - Tongling • ... (17 cities in total) • Beijing • Chongqing • Fujian • Gansu • Guangdong • Guangxi • Guizhou • Hainan • ... • Taiwan • Hong Kong • Macao • Overseas • Other • (46 in total)
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	Alphabetical order <ul style="list-style-type: none"> • All • A • B • ... • Other • (28 in total)
Media (媒体汇)	...
Brand (品牌馆)	...
Government (政务厅)	...
SNS (网站汇)	...
Campus (校园)	...
Agency (机构)	...

Since these apps share the same structure, the “Hall of fame” (“*Mingrentang*,” or “名人堂”) app is used as an example in the table to illustrate the complex structures of these apps. The child pages of these apps and some sections of the “Hall of fame” app are omitted in the table, and the omission is indicated with elapses.

The “Hall of fame” app lists the popular individual verified user accounts (Figure 5-2). The accounts are sorted in three ways: by the industries or fields the user accounts belong to, by their locations, and by their names in alphabetical order. Under “Industries” tab are 34 categories, ranging from “Entertainment,” “Sports,” and “Media” to “Construction,” “Transportation,” and “Space and aviation.” Each industry, as illustrated by the “Entertainment” category, has further specified sub-categories under it. Under the “Locations” tab, all the

provinces, autonomous regions, autonomous metropolis, special administrative regions, Taiwan, and two additional categories, “Overseas” and “Other,” are listed. Each province or autonomous regions, as “Anhui” illustrates, has cities listed under it, and 17 countries and “Other” are listed under “Overseas.”



Figure 5-2 Screenshot: the landing page of the “Hall of Fame” app on Sina Weibo

Under some of the categories, a child page called “What they are saying” displays the *weibos* from users listed under this category. However, this page does not consistently appear under each category. This inconsistency is not uncommon on Sina Weibo. Because of the complex IA design, some deep pages might be neglected when the SNS is redesigned or updated.

The categorization of user account is so specific that many of the categories only have a short list of users, and some categories contain only one user (Figure 5-3). These single-user categories render such specific classification not only meaningless, but also obstructs the user from efficiently finding users they are interested in by forcing them to navigate from one category to another.



Figure 5-3 Screenshot: an example of a category populated by one user on Sina Weibo

To conclude, the organizational structures of the two SNSs differ in a number of ways. Twitter has one single hierarchical structure, which is both shallow and narrow, with minimal classification of information built into the structure. The SNS heavily relies on content streams to organize content organically and dynamically. Sina Weibo, on the other hand, has multiple hierarchical structures connected to each other, and each of them has a deeper and broader organizational structure than Twitter with complex and specific categories of information. This structure privileges the system's *a priori* logic over a more organic *a posteriori* approach to content organization.

From the user's perspective, Twitter's structure requires less mental engagement from the user with the system than Sina Weibo. In other words, the design of Sina Weibo's organization structure requires the user to understand and comply with the system's conceptual model of the content organization in order to find information. In comparison, by minimizing its hierarchical structure, Twitter reduces the complexity of the system's conceptual model of the organizational structure the user is required to understand and comply with in order to find information.

In the next section, I compare some of these tendencies seen in the organizational structures of Twitter and Sina Weibo and others expressed in the specific ways in which content is organized on the SNSs.

5.2 Content organization

Twitter and Sina Weibo rely on user engagement. Therefore, how to organize the vast amount of UGC on the SNSs so that the user can easily find the content relevant to them is essential to the user's experience on the sites. Using the *follow* feature, users are able to customize what content they prefer to receive by identifying the sources of the content, i.e., user accounts. Further, using the list/groups feature, they are able to view the preferred content in separate *timelines* defined by themselves.

Besides the content preferred by users, it is important for the SNS to organize the content from user accounts that are outside a user's *following* in ways to connect the user to the content unknown to them. Because of the huge amount of the content on the SNSs, it is utterly impossible for the user to consume all of it. From the SNSs' point of view, it is important to connect users to some content, which is essentially a selection process. Twitter and Sina

Weibo both utilize data and metadata generated from users' activities on the SNSs. However, what types of content the two SNSs connect the user to and the ways they organize content in the network are different.

While Twitter tends to select content for the individual user based on the user's preferences and interests, Sina Weibo tends to put much weight on the trends in the entire network more than Twitter. In other words, Twitter tends to prioritize the ways in which it connects users to current content of high relevance to them as individual users and/or to the communities users define and associate themselves with through their activities. Sina Weibo, on the other hand, tends to connect users to content that is most engaged by users across the entire network. Translated in their design, Twitter does not have large portion of the SNS dedicated to content (including content sources) popular in the network, whereas Sina Weibo dedicates much effort to present content in various elaborated forms that reflect the trends in the network.

The main UGC on Twitter and Sina Weibo are *tweets* and *weibos*, i.e., short posts, although on Twitter, public lists that other users can subscribe to can also be considered UGC. The organization of content, however, also should include the organization of user accounts, since they are the sources of content. The ways the two SNSs organize the user accounts and *tweets/weibos* will be discussed in separate sub-sections below. In addition, since Sina Weibo uses apps and/or communities as spaces to organize content, these design features will be discussed in another sub-section. Finally, the last sub-section will be devoted to the organization of promoted content and advertisements.

5.2.1 User accounts organization

Since content on Twitter and Sina Weibo is generated by users, user accounts are used by both SNSs as metadata to organize content by its sources. Both SNSs afford users two ways to connect to the user accounts that they are not following—through customized recommendations and through browsing topical categories.

Twitter and Sina Weibo both recommend users accounts to users based on the people they follow, and their engagement with the content. Twitter display these recommended users on a “Who to follow” page in the “Discover” section, and Sina Weibo’s “Find people” page has the similar function (Figure 5-4).





Figure 5-4 The “Who to follow” page on Twitter (top) and the “Find people” page on Sina Weibo (bottom)

The users recommended to the user on these pages on Twitter and Sina Weibo are based on the user’s engagement with other users and content in the networks. A difference between the two, however, is that Sina Weibo also uses the personal data provided by the users for their profiles, such as tags, employers, and educational information, to match users. Twitter, however, does not collect such data from users, and relies solely on data automatically generated from users’ activities. In other words, while Twitter utilizes more “organic” data to match users with sources of content, i.e., user accounts, the data Sina Weibo also include self-reported data.

Another difference lies in the information each entry presents to the user, which suggests that Twitter's design tends to drive action, while Sina Weibo prioritizes the completeness of information. On Twitter, the information about the recommended user only includes the avatar image (AVI), the full name, the username, and a short introduction the user composed for their profile, which may contain hyperlinks (Figure 5-5). In addition, each entry also includes two action icons. One is the "Follow" button, which affords the user to follow the recommended user on this page. Another action icon is linked to a number of options of actions in a dropdown menu, including communication actions such as "Tweet to @username," "Send a Direct Message," and "Add or remove from lists," options to block or report the user, and an option to embed profile on a webpage. These elements included in each entry afford the user to *act*, i.e., to interact with each other, to engage with the content, and to move content across the network and the web.

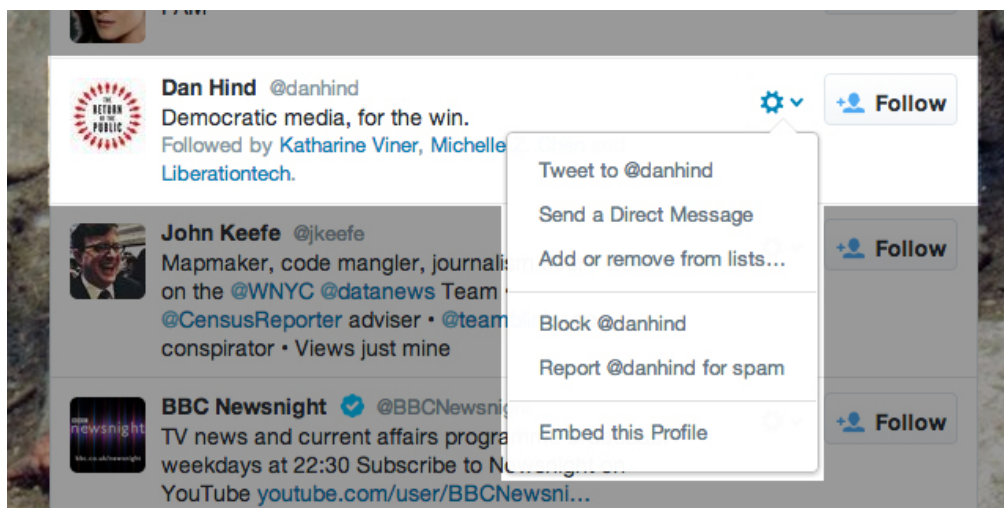


Figure 5-5 Entries of recommended users on the “Who to follow” page on Twitter.

On Sina Weibo, however, each recommended user includes detailed information about the user, including, besides the comparable information on Twitter, the user's gender, location,

the number of *following*, *followers*, and *weibos*, educational information, the connections between this recommended user and the user who is viewing this page, and even some of the images the recommended user has posted in their *weibos* (Figure 5-6). On the other hand, each entry only includes one action icon, which is “Add to *following*.” No other action is afforded on this page. In order to interact with this recommended user, the user has to navigate to the recommended user’s profile page. Thus unlike Twitter, which prioritizes the affordance of fast and easy action taking on the user’s part, Sina Weibo’s design prioritizes presenting as much details of users’ personal information as possible.



Figure 5-6 Entries of recommended users on the “Find people” page on Sina Weibo

Besides recommended users customized for individual users, Twitter and Sina Weibo organize into interest categories user accounts most engaged with by other users in the network. As discussed in the last section, on Twitter, “Popular accounts” page and its child

pages are used to display these users, and on Sina Weibo, a number of the apps are designed to display popular users of different statuses and categories.

Twitter's "Popular accounts" page displays user accounts selected *a posteriori* by algorithms based on the rate of tweets, the number of followers and interactions, and the content ("Finding popular accounts on Twitter," 2014). The user accounts are organized under parallel topical categories (Figure 5-7). The majority of these categories focus on generic topics such as "Music," "Photography," "Entertainment," and "News." Some of them, however, focus on specific sports organizations that have a large following, such as "NBA," "MLB," and "NASCAR," during their sports' seasons. Each category has a separate page to display all the user account it contains (Figure 5-8). The number of user accounts contained in each category varies from around 40 to 150. These categories are based on the content these user accounts engage with, i.e., the content they publish, *retweet*, and the users they interact with and the content that those users engage with. In other words, the categorization is *a posteriori*, solely based on the activities of these users.

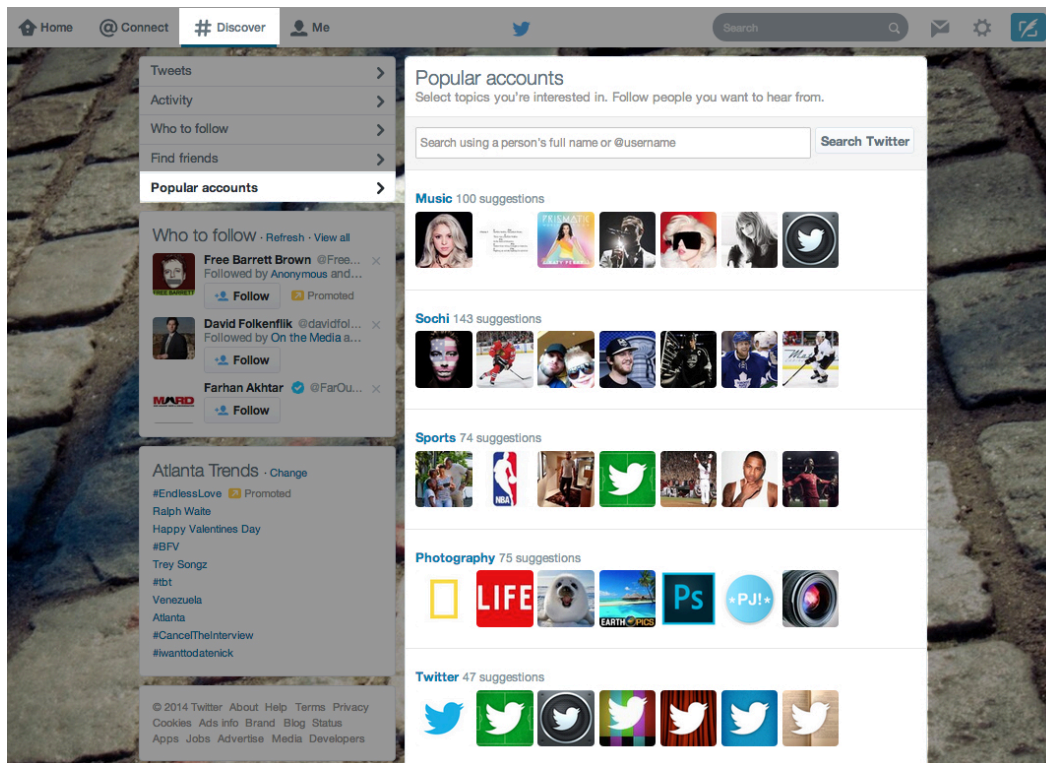


Figure 5-7 Screenshot: the “Popular accounts” page on Twitter

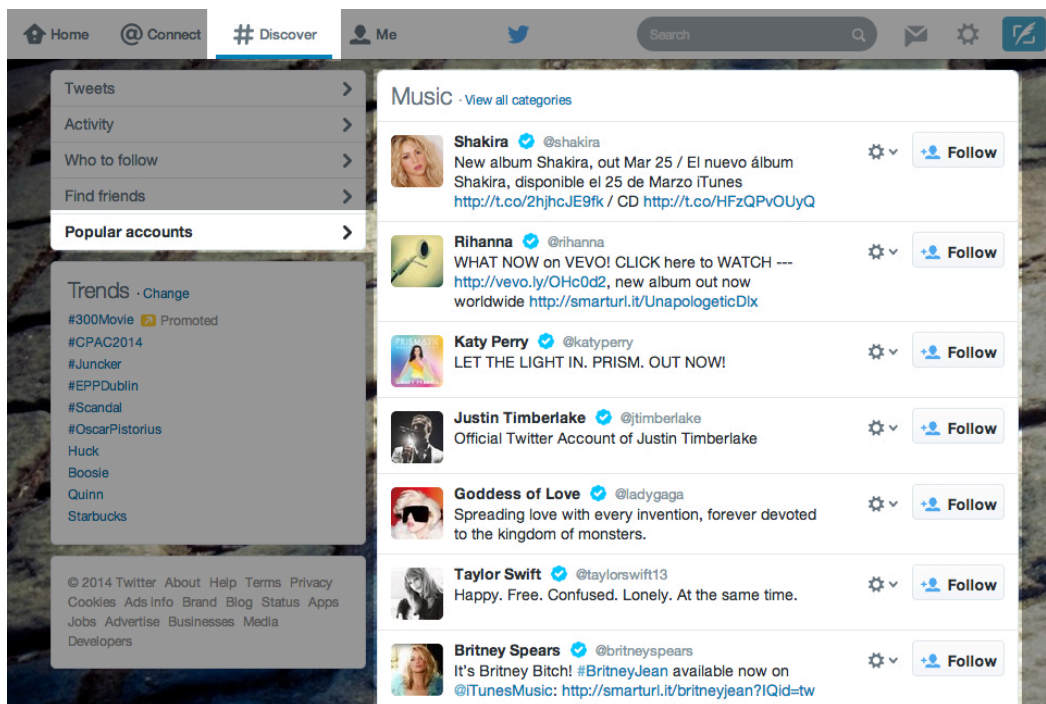


Figure 5-8 Screenshot: the popular account under “Music” on Twitter

Sina Weibo, on the other hand, has a number of apps, i.e., subsites, allocated to presenting the popular users in the network. Each of these apps contains a much larger amount of information than Twitter's "Popular accounts" page, and the classification of user accounts is based on the information provided by the users in their profile, chosen by users from a list of options provided by the system, rather than the data generated and collected in the activities users engage in on the SNS, including both content and use data such as whom they follow and/or interact with.

Similarly, a second app on Sina Weibo, the "Daren" app, is designated to unverified users who have gained the status of "Daren" ("达人") to be listed available for browse. Similar to the apps discussed above, the users in the "Daren" app are grouped into categories based on attributes such as topics, locations, interests, and genders. In addition, in the "Daren" app, users are ranked based on popularity scores and organized in three charts for the *daren* with whom the viewing user is a "close friend" (users with a reciprocal *following* relationship), all the *daren* users on the network, and the *daren* user in the same location as the user.

The explicit ranking of users is another distinct way of organizing users on Sina Weibo. In addition to the charts on the "Daren" app, an app, the "Top charts" app, is designed solely for ranking verified users. In this app, users are ranked in two charts, the "Influence chart" ("Yingxianglibang" or "影响力榜") and the "Popularity chart" ("Renqibang" or "人气榜"), the former based on user engagement and the latter based on the number of followers (Figure 5-9). Under each of these charts are a number of further specified charts according to user categories such as media, government, and SNSs.



Figure 5-9 The “Celebrities influence chart” on Sina Weibo’s “Top charts” app.

Such a ranking system is not explicitly used on Twitter to organize user accounts in the order of their popularity and/or influence in the network. However, such ordering of users by their influence power in the network—and arguably in a broader social content—is inherent to the design of Twitter’s network, albeit more covertly represented in the interface.

5.2.2 Tweets/Weibos organization

The similar tendencies observed in the two SNSs’ approaches to the organization of user accounts can be observed in their organization of *tweets/weibos*.

Twitter organizes *tweets* for users in two ways. First of all, on the “Tweets” page in the “Discover” section, a *timeline* displays *tweets* customized for the user in real-time (Figure 5-10). Twitter’s slogan for this page is “What’s happening now, tailored for you.” This slogan articulates two characteristics of this *timeline*. First, the *tweets* are displayed on the *timeline* in real time, i.e., the content in the *timeline* is refreshed as it is published. Second, the content is customized for the user who has logged in, which includes the *tweets* from the users whom this user *follows* which have been *retweeted* for a large number of times, and *tweets* the users this

user *follows* have engaged with, such as their *retweets* and *favorites*. That means that all the *tweets* on this page are connected to the user's preferred content via the users they *follow*. Although the preferences of users in the entire network as a whole are reflected on this *timeline* via the most *retweeted tweets* from the users a use *follows*, the preference of the individual user is still the dominant consideration, for no *tweets* that are popular in the network as a whole but have no connection to the user are displayed on this page.

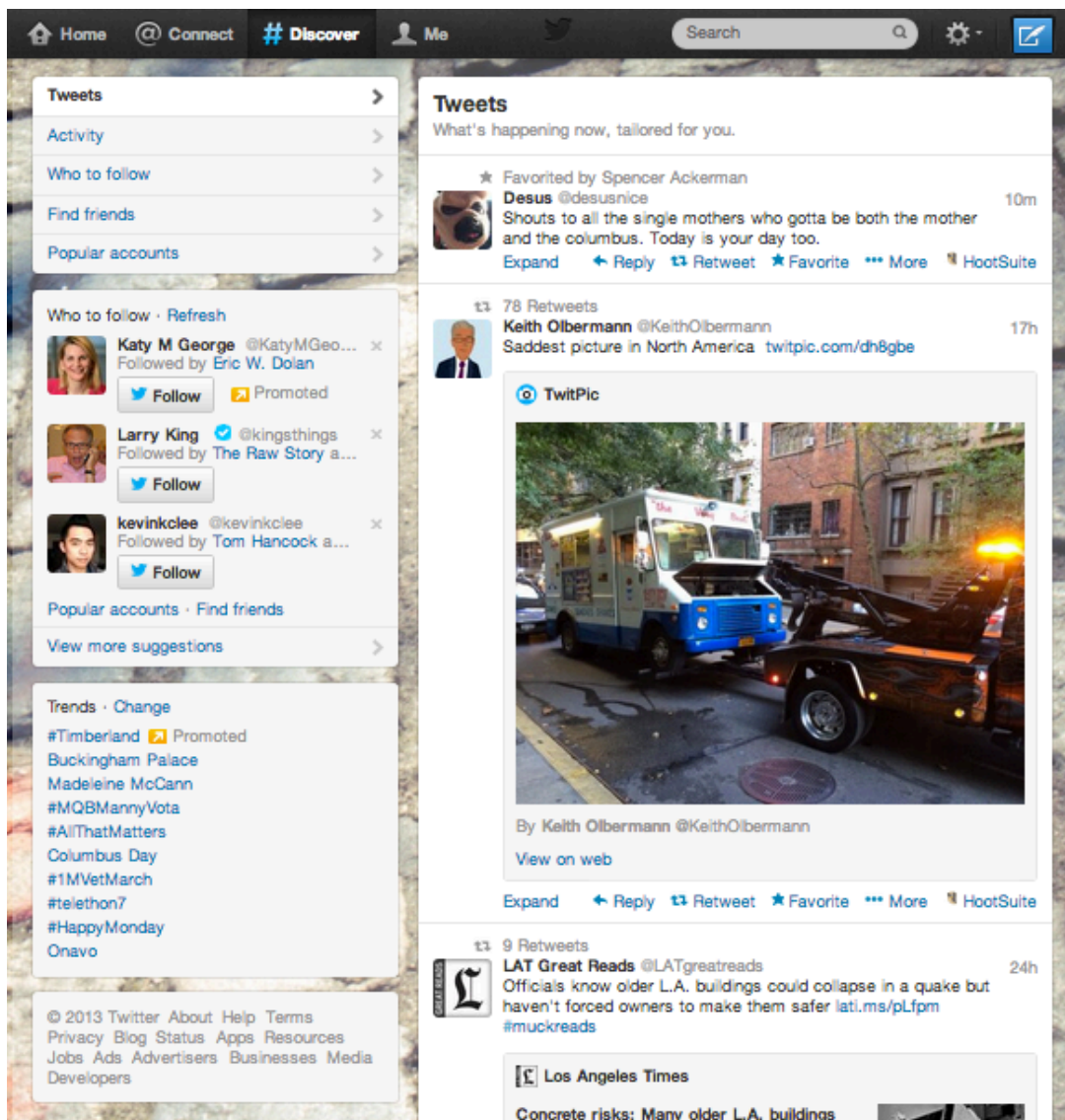


Figure 5-10 Screenshot: the “Tweets” *timeline* in the “Discover” section

Besides the tailored *tweets* page, Twitter has another feature to organize *tweets* utilizing the *hashtags* and keywords embedded in them. *Tweets*, from all users in the network, are organized by trending topics, i.e., *hashtags* and keywords that appear most frequently in *tweets* in the network. The list of trending topics do not have a designated page for them. The hyperlinks of these trending topics are listed in a content box in the left column, displayed on every page of the SNS (Figure 5-11).

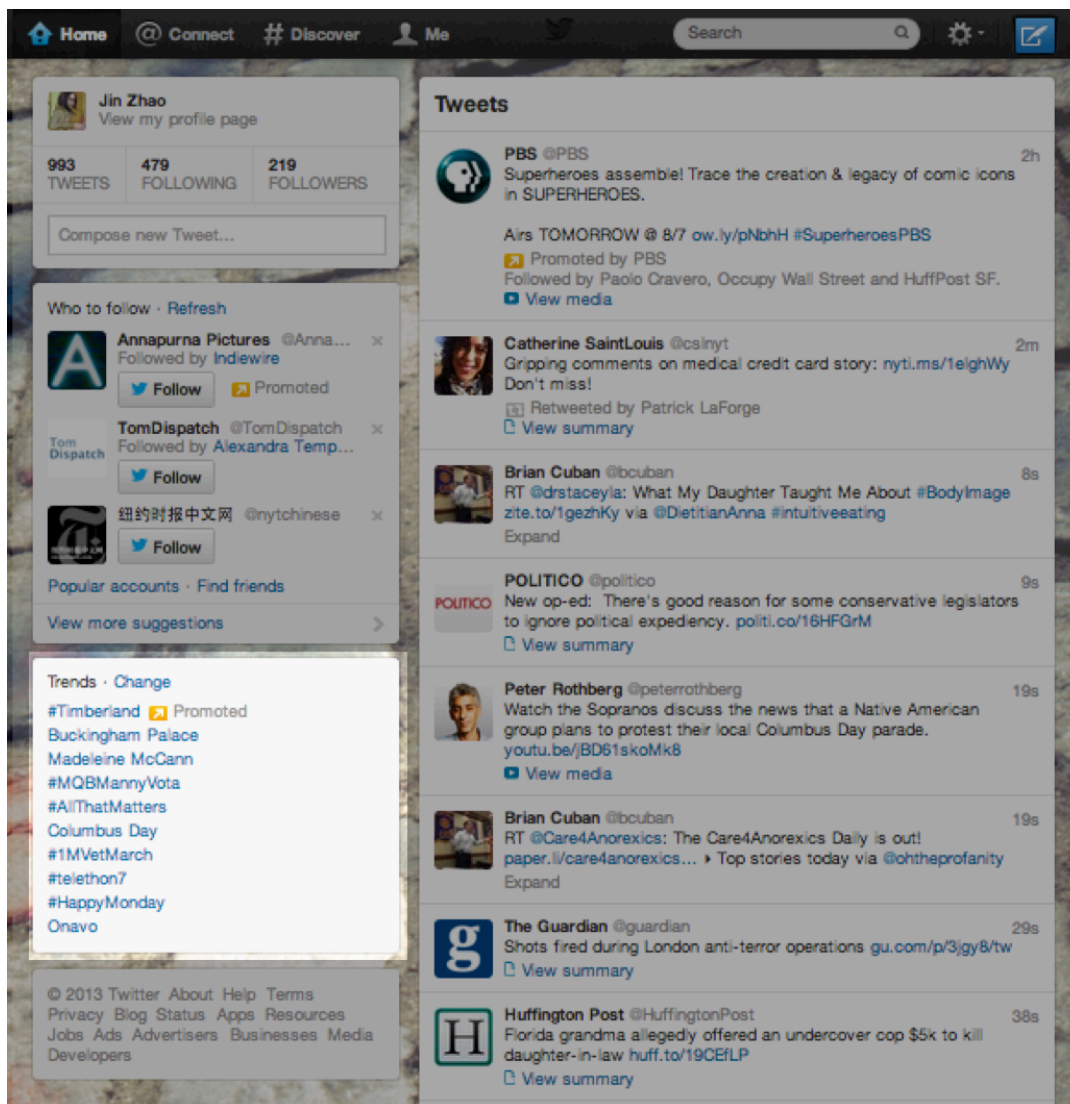


Figure 5-11 Trending topics on the Home page on Twitter

The design of the trending topics list has a few important characteristics. First, the topics on the trending list are not necessarily in the form of *hashtags* but can be any textual elements automatically extracted from *tweets*. *Hashtags* are an invention of users to mark topics in the early development of Twitter. *Hashtags* are still being used in the current version of the SNS, and have their unique affordance. For instance, *hashtags* embedded in a tweet becomes a hyperlink automatically and, on click, it takes the user to the topic page where all the *tweets* that contain this *hashtag* or the plain text of same letters or phrase are displayed. In other words, *hashtags* have an indexing function. However, Twitter's current system can track words and phrases in the text of the *tweets* beyond the confinement of *hashtags*, which makes the system more transparent in sense that it partially alleviates the task of tagging information from the user and further automatizes the organization of content.

Second, the trending list can be customized according to the user's location. Twitter offers the option for the user to mark and/or change the location for trending topics so that they are more locally customized. This location does not have to be consistent with the location of the user articulated on the profile. That means that the user can follow *tweets* relevant to any particular place of interest. Users are not required to provide their location information, so a user can also opt to track topics trending in the entire network.

Third, the list of trending topics on Twitter is a short list that consists of only ten topics in no explicit order of importance or popularity. These topics are constantly refreshed so that they represent the real-time conversations in the network. Although they are ordered spatially from the top down, which implies an order, they are not explicitly ranked or numbered. Since the list is short and the content box does not take a large space, all the topics on the list can be

displayed within the screen space without the need to scroll down, the topics are therefore given approximately equal visibility.

Each trending topic on the list is a hyperlink linking to a page displaying content relevant to this topic, which is also the search result page, i.e., the page can be accessed by searching the same keyword. The landing page of the search results displays *tweets* containing the *hashtags* or keywords and accounts that have *tweeted* content relevant to the topic (Figure 5-12).

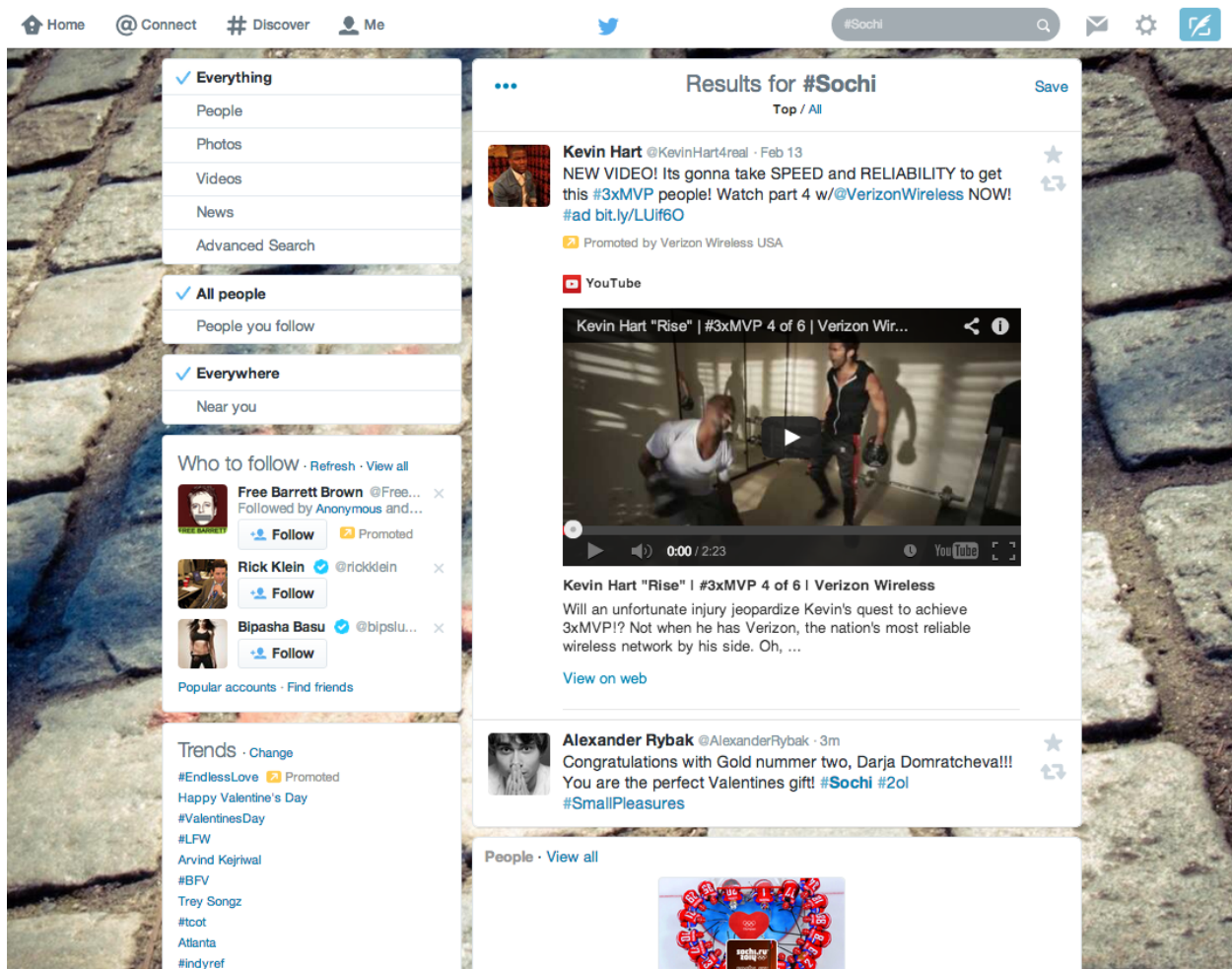


Figure 5-12 Screenshot: the landing page of the topic/search results page on Twitter

Finally, the *tweets* on a certain topic on this page can be filtered by types of content (“Photos,” “Videos,” “News”), sources (all user or “People you follow”), and locations (“Everywhere” and “Near you”), which can be displayed on separate pages (Figure 5-13).

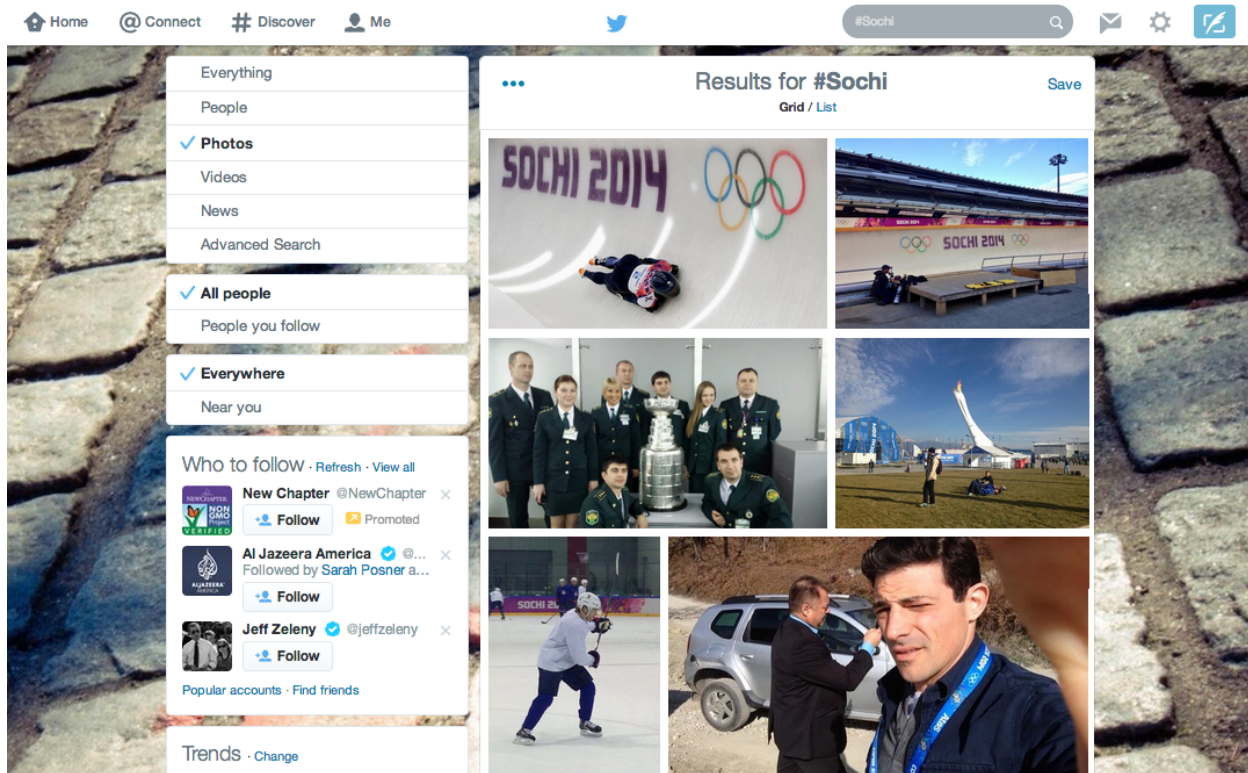


Figure 5-13 Screenshot: the topic/search results page, filtered for photos tweets only

Sina Weibo also organizes *weibos* based on user activities. First of all, individual *weibos* are displayed and promoted to users on the Home page based on their popularity, i.e., users’ engagement such as *shares*, *comments*, *favorites*, and *saves* (“*shouchang*” or “收藏”). On the Home page, a short list, “Top *weibos*,” in the right sidebar displays the most popular *weibos* shared in the network, which can be refreshed by clicking on a “Change” button on the top-right corner of the list (Figure 5-14). The list is linked to the “Hot” app where most popular *weibos* are displayed (Figure 5-15).

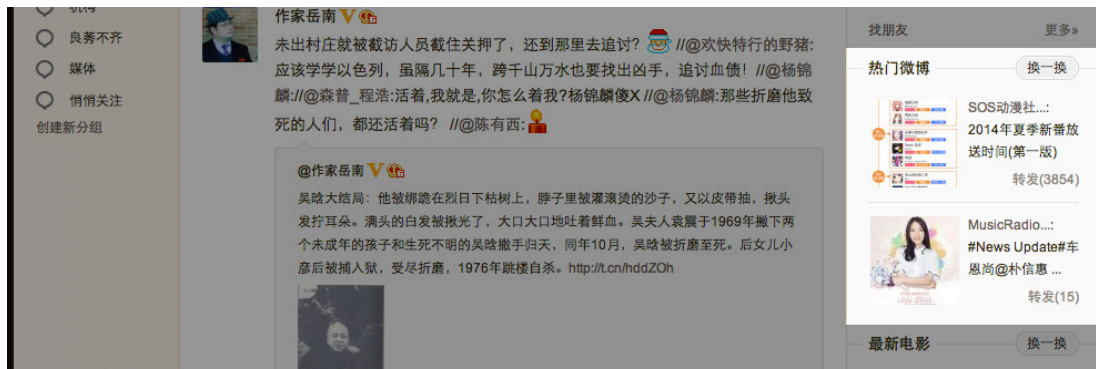


Figure 5-14 Screenshot: Popular *weibos* list on Home page



Figure 5-15 Screenshot: the “Hot” app on Sina Weibo

Sina Weibo's "Popular *weibos*" list and its "Hot" app, similar to Twitter's popular *tweets* page, afford the user the ability to browse content that they are not aware of or from users they are not *following*. However, the designs of these features on the two SNSs have many differences.

First of all, on Twitter, the popular tweets are selected for a particular user based on both their relevance to the user's interests and popularity, and they are organized on a *timeline* with no ranking. In Sina Weibo's "Hot" app, however, *weibos* are ranked solely based on their popularity in the entire network, and displayed explicitly on charts with ranking numbers. The content is not customized according to the user's preferences and activities.

Secondly, Twitter's "Tweets" page under "Discover" has a single timeline, and tweets are not categorized. The "Hot" app on Sina Weibo, however, has a number of charts, each displaying popular *weibos* in a topical category, such as "Beauty," "Funny," and "Relationship." Charts based on data within the last hour, 24 hours, week, and month are displayed separately, and the user can also view charts on a particular day in the past.

In addition, Sina Weibo's "Hot" app has a "Hot topics" list of the most popular topics/*hashtags* in the right column, and each topic/*hashtags* listed is linked to a page where the *weibos* that contain the *hashtag* are explicitly ranked according to their popularity in the entire network.

Finally, under the "Hot topics" list, a "Trending topics chart" is displayed in the right column, which has a ranked list of the current trending topics. This list is also displayed on other pages on Sina Weibo, such as the Home page (Figure 5-16). Each topic on the list is followed by a number explicitly indicating the number of *weibos* on this topic.



Figure 5-16 Screenshot: “Trending topics chart” on the Home page on Sina Weibo

Each topic on the list is linked to a page that displays the *weibos* that contain the *hashtag* (Figures 5-17). The Weibos can be filtered in three ways, “Original *weibos*,” “From verified users,” and “From users you *follow*.”

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"I WAS BORN IN IT. I DIDN'T SEE THE BOTTOM OF AN IMAGE UNTIL I WAS A MAN."





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话题主持人需为微博达人或认证用户

最新参与用户

 我争取我推
 佩珀太太
 蘑菇子牌学
 蚊羊一盒冬

 杭州龙田小
 FOC_48-夜
 温州晚报
 小女蓝拯救

热门话题榜

#奥斯卡#	250260°C
#祈福昆明#	203463°C
#微博看两会#	156510°C
#绘大最可爱#	124214°C
#周一综合症#	117642°C
#最新十大堕落表现#	78244°C
#我有问题问总理#	74697°C
#金秀贤快乐大本营#	65767°C
#昆明火车站砍人事件#	62329°C
#欧汉声聊新专辑#	61087°C

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会修自行车
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#第一韩剧男神#
私信聊天[5]
291010条微博讨论

#第一女神#
11355183条微博讨论

Figure 5-17 Screenshot: a *huati*/topic page on Sina Weibo

Each of these pages is a child page in the “Huati” module on Sina Weibo (Figure 5-18). Again, the topics are categorized and ranked explicitly based on the number of weibos that contain them in the entire network.

The screenshot displays the Sina Weibo 'Huati' (Topics) module landing page. The page features a navigation bar at the top with the Sina Weibo logo and various icons. Below the navigation bar, there is a section titled '微话题' (Weibo Topics) with a sub-header '热门话题榜' (Hot Topics List). The list shows 15 topics, each with a rank, a title, a description, a category, a count, and a host. The topics are as follows:

Rank	Topic	Description	Category	Count	Host
TOP 1	#感动中国#	【感动中国 因你而生】又到与好人相约...	社会	189244	央视新闻
TOP 2	#FlappyBird#	找男朋友就要找Flappy...	社会	179232	微博新鲜事
TOP 3	#都敏俊，救我#	节后无心上班上学，网友齐呼都敏...	电视剧	177127	李三一
4	#阿里全资收购高德#	【阿里巴巴集团将10.45...	科技	138291	新浪科技
5	#冰雪奇缘#	#冰雪奇缘#已经上映啦，小伙伴们看电...	电影	101689	迪士尼互动
6	#不想上班#			101454	暂不开放申请
7	#把电视剧名字中的一个字换成狗#	#把电...	娱乐八卦	81412	张东桂
8	#金叹改名喜旺#	由@李少红 导演监制的《继承...	娱乐八卦	75454	新浪山东
9	#我是单身#	如果你是单身，就参与此话题证明你是单...	情感	72309	V微媒体研究中
10	#东莞挺住#	东莞色情业报道引发网友疯狂吐槽	广东 社会	71825	那个野和尚
11	#免费wifi覆盖全球#	妈妈再也不用担心我的...	科技	71420	暂不开放申请
12	#来自星星的你#	SBS水木剧《来自星星的你...	海外 电视剧	65656	金秀贤中国首站
13	#让红包飞#	2014新浪微博“让红包飞”活动于1...	社会	65579	让红包飞
14	#浣熊被活剥#	【惨绝人寰的时尚：浣熊被活剥 挣扎...	公益	62903	新浪公益
15	#情人节约会张歆艺#	2月14日情人节，单身...	娱乐八卦	62552	粉丝窝娱乐

The right sidebar shows user information for '白话话白' (White Talk White) and a list of recommended topics, including '春晚红包' (Spring Festival Red Packet) and '节后综合症' (Post-Festival Syndrome).

Figure 5-18 Screenshot: the landing page of the “Huati” (“Topics”) module on Sina Weibo

A few differences apropos *huatis*/topics between Twitter and Sina Weibo need to be noted. First of all, on Twitter, as discussed earlier, not only *hashtags* but plain text can be used to indicate topics. On Sina Weibo, only *hashtags* marked with the symbol “#” can be used to indicate topics. Users, therefore, must take up the task of tagging their content in order for it to be organized based on topics.

Secondly, on Twitter, content is organized organically, and no user is appointed in an editorial or administrative role. On, Sina Weibo, however, verified users can apply to be the “host” of a topic, who performs editorial tasks such as promoting *weibos* and create a “debate” format for the topic for users to pick one of two sides when they post content on the topic (Figure 5-19).



Figure 5-19 Screenshot: a *huati*/topic page in the “debate” format

5.2.3 Apps and communities

In addition to the *weibos*, Sina Weibo has a wide range of apps that function like sub-communities devoted to users’ sharing content in a certain area of interest, such as the “Movie” app, the “Books” app, and the “Photography” app (Figure 5-20).

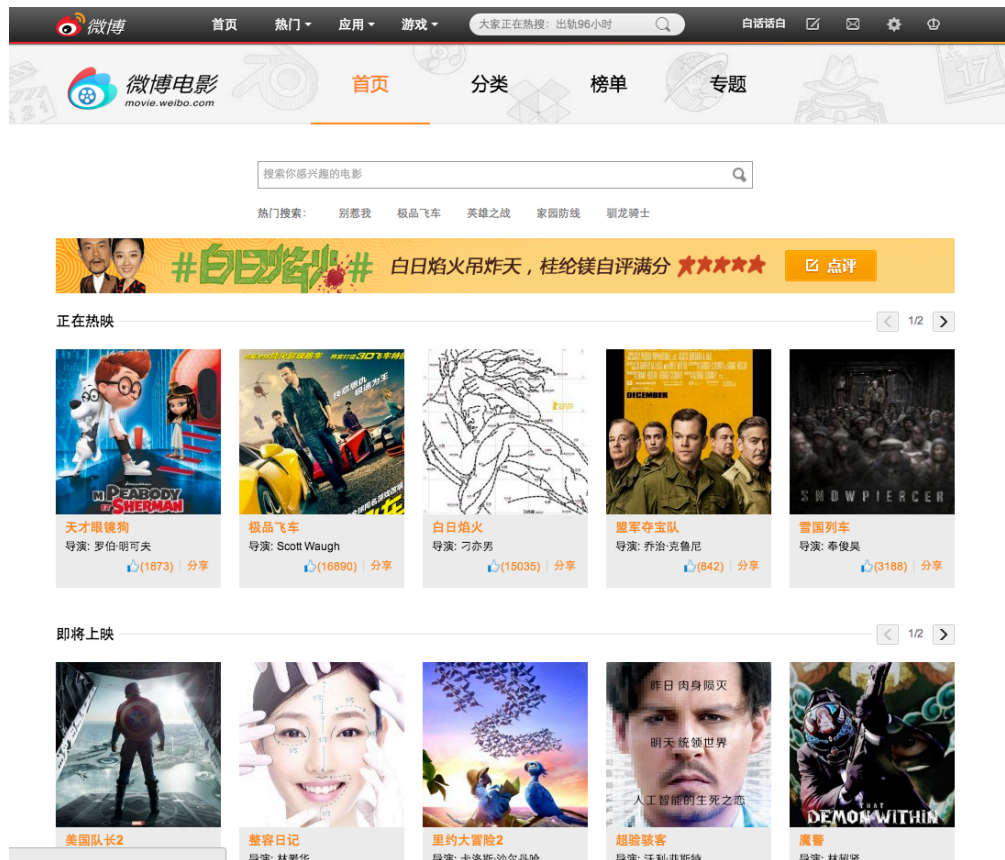


Figure 5-20 Screenshot: the “Movie” app on Sina Weibo

The “Wei bars” app on Sina Weibo allows users to create and/or join “Wei bars” (Figure 5-21). These bars function like online communities where users can post content on a certain topic, such as travel and photography (Figure 5-22). The content users post in these bars can be promoted in their Weibo *timeline*.



Figure 5-21 Screenshot: the “Wei bar” app on Sina Weibo



Figure 5-22 Screenshot: the “Travel bar” on Sina Weibo

These apps provide users structured spaces that resemble the traditional online communities, where they share information on certain topics. Such structured communities are absent on Twitter, where communities are formed loosely for each user based on activities facilitated by using the basic features such as the *follow* feature, *hashtags*, and *replies*. Such communities are formed spontaneously and defined by users through their activities in the network. In a sense, while the communities on Sina Weibo are explicitly structured in the form of apps, i.e., subsites, the communities on Twitter are formless.

5.2.4 Promotion and advertising

Compared to Twitter, Sina Weibo promotes its features more aggressively. For instance, on Sina Weibo, the system prompts a new *weibo* after the user uses a *feature*, such as page design customization, to promote it. In some cases, the *timeline* is interrupted to promote content. These promotional efforts are not seen on Twitter.

The advertising design is different between the two sites as well. Both SNSs. First of all, both SNSs have paid content displayed with the organic UGC in form of promoted *tweets/weibos* (Figure 5-23), promoted user accounts (Figure 5-24), and promoted topics and/or *hashtags*. The promoted content and user accounts are marked as such with a “Promoted” icon.





Figure 5-23 Screenshot: a promoted *tweet* (top) and a promoted *weibo* with a promoted account (bottom)

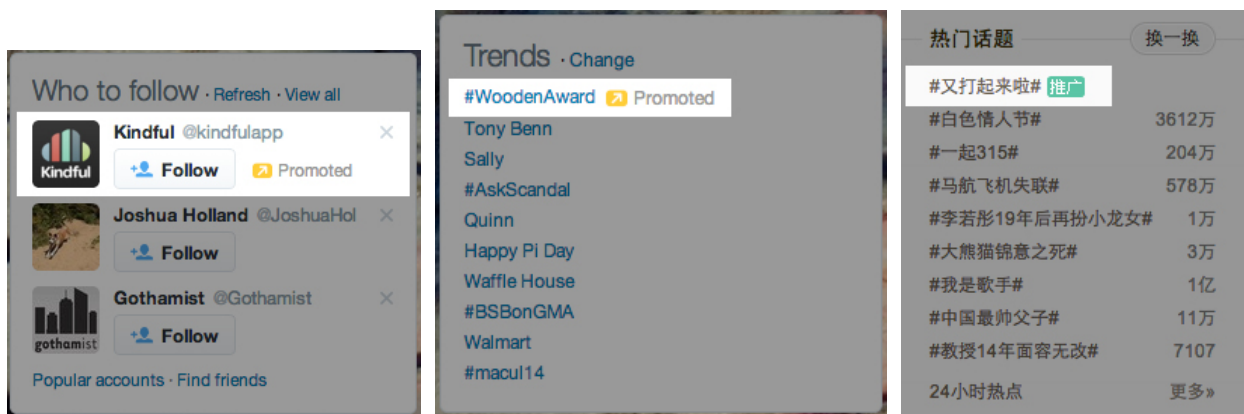


Figure 5-24 Screenshots: a promoted user (left) and a promoted topic (center) on Twitter, and a promoted topic on Sina Weibo (right)

On Sina Weibo, however, besides the promoted content and user accounts, advertisements are placed on the SNS as often seen on traditional SNSs (5-25). Advertising as such is displayed throughout all the pages and subsites of Sina Weibo.



Figure 5-25 Screenshot: Sina Weibo's advertisements on the Home page

The design of the presentation of promoted content on the SNSs suggests that Twitter has a clearer break from the older generation of webpage-based SNSs than Sina Weibo.

5.3 Navigation

The most distinct difference in the navigation systems of Twitter Sina Weibo lies in consistency. Twitter's navigation is consistent throughout the entire SNS, while Sina Weibo's has many inconsistencies across the SNS.

Twitter has a consistent navigation system throughout the SNS. The components that appear on all pages, with very few exceptions, include a global navigation bar, a local submenu (except for the "Home" page), and content boxes with links to highlighted content (Figure 5-26).

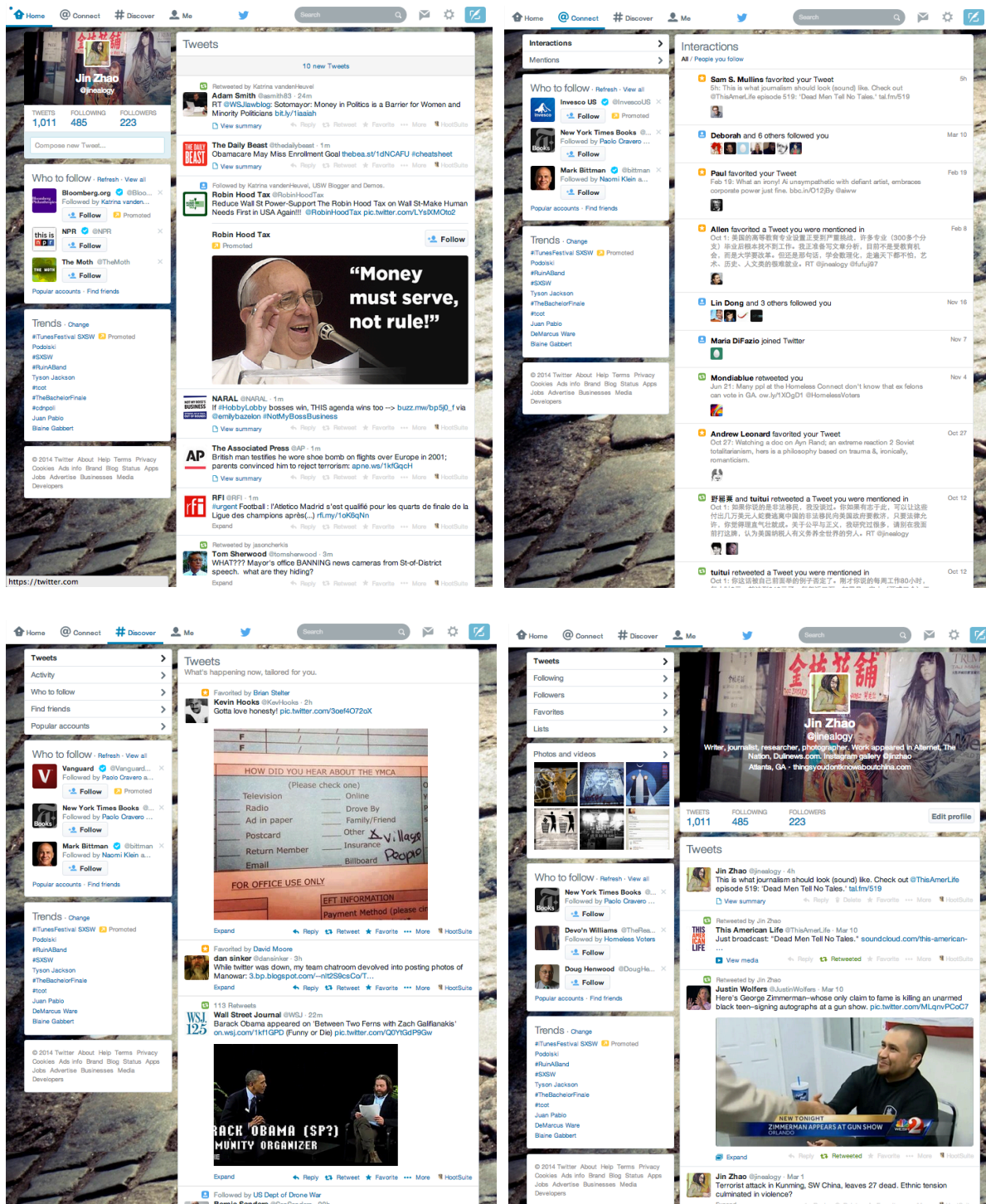


Figure 5-26 Screenshot: Twitter's pages, "Home" (top-left), "Connect" (top-right), "Discover" (bottom-left), and "Me" (bottom-right)

The global navigation bar contains the following elements:

- The main menu with tabs linking to the four main sections on the site
- A home button (the Twitter icon)
- A search bar
- A “Direct messages” icon
- A “Settings” icon
- A “Compose new tweet” icon

It allows the user to access the main sections of content and the essential functions such as search, direct messaging, account setting, and tweeting regardless what page they are on.

The content boxes which include:

- The user profile (the “Home” page only)
- A submenu (except for the “Home” page)
- “Photos & videos” (the “Me” section and its child pages only)
- “Who to follow”
- “Trends”
- Useful links (e.g., About, Help, Terms of Use, Privacy Policy, etc.)

They function as shortcuts to highlighted content, and in the case of the useful links box, provide easy access to documentations and information pertaining to the use of the SNS from anywhere on the SNS.

These content boxes are displayed in the same place in the same order on each page, with few exceptions (the “Me” section, for instance, has an additional content box, “Photos and videos”). Although the content of the submenus vary, they are consistent within each section.

Unlike Twitter, Sina Weibo's navigations are inconsistent throughout the SNS, which makes the navigation system appears to be complicated and hard to use.

As Figure 5-27 shows, the pages in the “Home” section, the user profile section, the “Connection center,” and in-house apps each has their own navigation system, except for the global navigation bar.



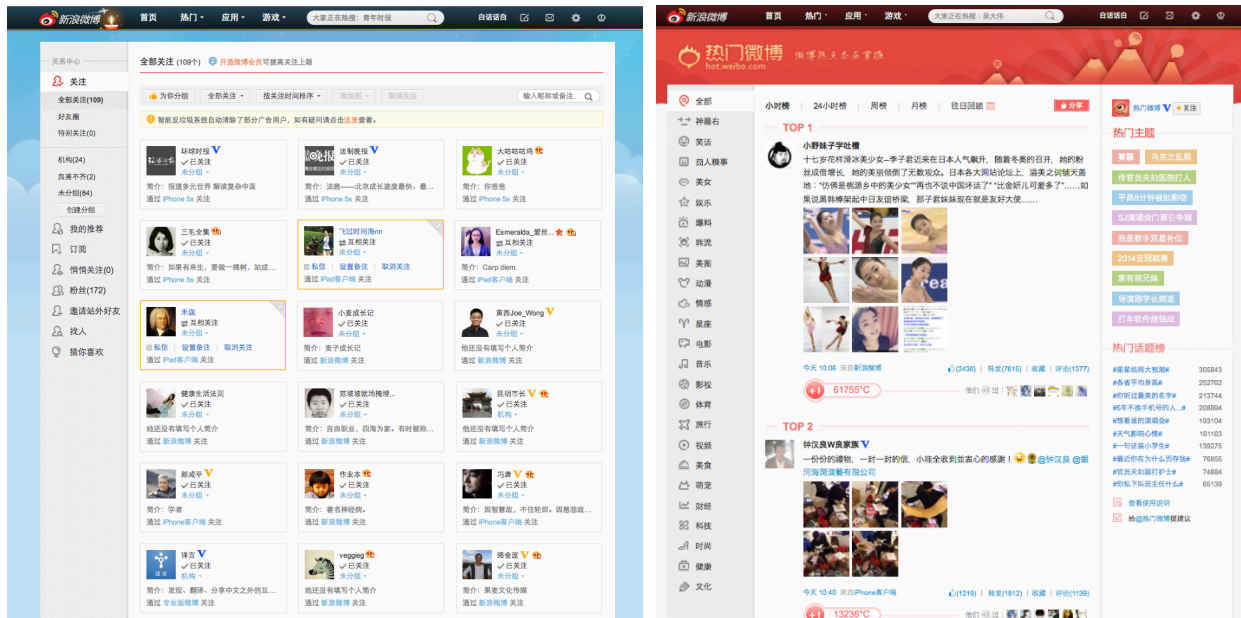


Figure 5-27 Screenshots: Sina Weibo’s page design: the “Home” section (top-left), the “User” section (top-right), the “Connection center” (bottom-left), and the “Hot” app (bottom-right).

However, except for the top global navigation bar, each section on the SNS has a different local navigation system. For instance, as Figure 5-28 shows, the “Home” section has two levels of menus in the left column, and another submenu with options to filter different types of content is positioned between the *weibo* editor and the main content in the center column, i.e., the main content area. In the right column, content boxes linked to content such as trending topics and popular accounts are displayed.



Figure 5-28 Screenshot: the “Home” page on Sina Weibo

The “User” section, however, uses a menu across the two columns under the user profile (Figure 5-29). Below the main menu in this section and above the main content, a submenu displays options to filter the content. The right column displays content boxes displaying content related to the owner of the user profile, such as the *following* list, or

published by them, such as “Photos.” However, unlike on Twitter, where content boxes are consistent throughout the site, the content in the content boxes is unique to each page in this section. On some pages, such as the “Photo albums” page, no content boxes are present at all.



Figure 5-29 Screenshot: the navigation system of the “User” section on Sina Weibo

In addition, on Sina Weibo, the navigation can change between two linked pages, which prevents the users from being able to navigate back to the page they have been unless they use

the “Back” button in the browser. For instance, when the user navigates from the landing page of “Connection center” (Figure 5-30) to “Search users” (Figure 5-31) page via the local menu in the left column, the menu disappears, and no link on this page links back to the “Connection center.” Such inconsistency that can seriously affect the user’s navigation experience is not present on Twitter.



Figure 5-30 Screenshot: the “Connection center” on Sina Weibo



Figure 5-31 Screenshot: the “Search users” page accessed via the “Connection center” on Sina Weibo

An additional distinction between the navigation Twitter and Sina Weibo is that on Twitter, internal pages open in the original windows, whereas on Sina Weibo, many pages open in new windows, especially when the user navigates between different modules, sections, and apps.

To summarize, Twitter appears to be consistent and clear, while Sina Weibo appears to be inconsistent, complex, and chaotic in the design of information organization and navigation. These design traits can also be observed in the design of search engines as shown in the next section.

5.4 Search

Twitter and Sina Weibo's internal search engines allow users to search for user accounts and content using information such as usernames and keywords, but the designs, especially the advance search designs have their own distinct characteristics.

Twitter's search system consists of a search engine in the global navigation bar, a search engine for user accounts on the "Who to follow" and the "Popular account" pages, and an advanced search engine. Twitter's search engine in the global navigation bar is a simple search bar, which allows the user to search user accounts by full names or the *usernames* and *tweets* by *hashtags* or keywords (Figure 5-32).



Figure 5-32 Screenshot: Twitter's basic global search engine

When the user types in the search bar, the system will suggest frequently searched terms and users based on the letters the user types in. The user can type a complete search term or choose one of the suggested terms from the dropdown list (Figure 5-33).

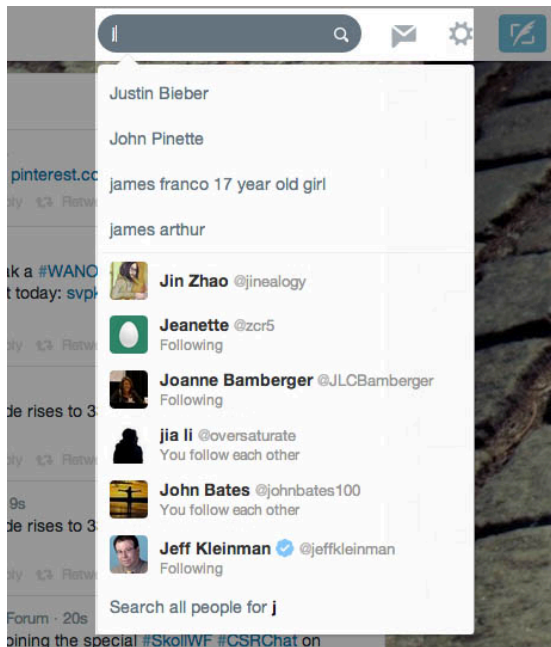


Figure 5-33 Screenshot: Twitter’s automatic suggestions for search

Besides the basic global search engine, on “Who to follow” page, a search engine is designed for user search only by the full name or the username (Figure 5-34).



Figure 5-34 Screenshot: user search engine on the “Who to follow” page on twitter

In addition to the basic search options, Twitter’s advanced search engine affords the user to narrow down their search results using a number of criteria to specify the words, users accounts, location, and time of the *tweets*, and the emoticons they contain that indicate attitudes (Figure 5-35).

The screenshot shows the 'Advanced Search' interface on Twitter. It is organized into several sections: 'Words', 'People', 'Places', 'Dates', and 'Other'. Each section contains specific search criteria and input fields. A 'Search' button is located at the bottom left.

Advanced Search

Words

- All of these words:
- This exact phrase:
- Any of these words:
- None of these words:
- These hashtags:
- Written in:

People

- From these accounts:
- To these accounts:
- Mentioning these accounts:

Places

- Near this place: [Add location](#)

Dates

- From this date: to

Other

Select: ☐ Positive :) ☐ Negative :(☐ Question ? ☐ Include retweets

Search

Figure 5-35 Screenshot: Twitter’s advanced search engine

It needs to be noted that Twitter puts much emphasis on affording the user the ability to accurately describe the content they are looking for. The advanced search engine’s “Words” and “People” criteria are designed to do just that.

The advanced search engine on Twitter (Figure 5-35) has a sophisticated keywords search system that includes the following lines:

- All of these words
- This exact phrase

- Any of these words
- None of these words
- These hashtags
- Written in (language)

The search engine also contains three lines for the sources of content:

- From these accounts
- To these accounts
- Mentioning these accounts

What these search criteria afford is the ability to find content on specific topics and involve interactions among specific users. The attitudes option further affords the user to find more specific opinions on certain topics. The search, therefore, is very useful to trace content on specific issues, events, or topics, and the debates surrounding them.

Furthermore, except for the “Language” option, where the user is to choose from a list of languages provided by the system in a dropdown list, all the other fields are open fields, in which the user can type in any phrase without the constraints of system-defined options. This design gives the user much freedom to define their search and, taking advantage of use data, produces search results that reflect the organic user activities and content in the network.

The search results can be further sorted on the search results page by criteria such as users and formats (Figure 5-36).

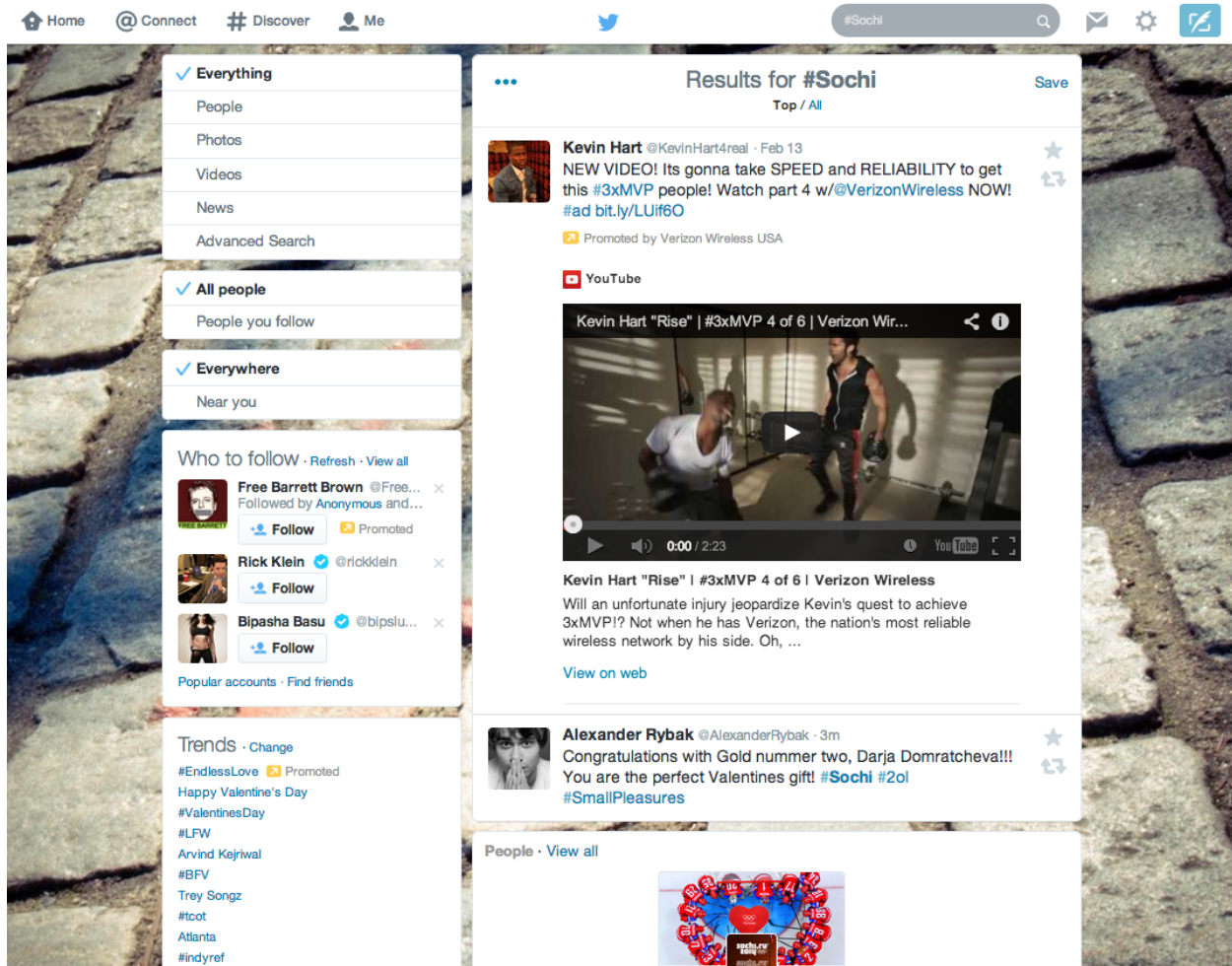


Figure 5-36 Screenshot: Twitter’s search results page

It needs to be noted that Twitter’s search engine for users is separate from its tool to find contacts the user already has established outside the network, which is the “Finds Friends” tool. This tool allows the user to search for contacts via their email addresses. The user also has the option to invite their people they know to join in Twitter’s network.

Sina Weibo’s search tools, on the other hand, are much more complicated. The system provides multiple complex search engines to search user accounts and *weibos*, and the criteria can be used for search are different from those used on Twitter.

Like Twitter, Sina Weibo provides a basic search engine in the global navigation bar on the top of the pages (Figure 5-37). This search engine allows the user to search for both user accounts and content by screen names and keywords. Unlike in the case of topic ranking and classification, where only *hashtags* can be recognized as topics, keywords used for searching content do not need to be *hashtags*.



Figure 5-37 Screenshot: Sina Weibo's basic global search engine

When the user puts the cursor in the search bar of the global search engine, a dropdown list of the most searched terms as well as a link to the “Most Searched Charts” appears (Figure 5-38). This list, however, is not prompted by the user's input as on Twitter. Instead, the most searched terms are suggested to the user based on the entire network's search activities.



Figure 5-38 Screenshot: the dropdown list of search terms in Sina Weibo's global search engine

The user can type their own terms, choose from the list of the most searched terms, or go to the “Most Searched Charts” section, where the most searched terms are categorized in topics and ranked in charts (Figure 5-39).



Figure 5-39 Screenshot: the landing page of the “Most Searched Charts” section

Besides the basic global search engine, Sina Weibo has two search engines with which the user can search for user accounts using personal information included in the user profile.

The first user search engine affords the user to search for contacts they have known outside the network or for users who fit in a certain demographics. The user has a number of options. With “Fast User Search” engine, the user can use personal information provided by users for their accounts, such as the location, gender, age, tags, school, employer, relationship status, sexual orientation, blood type, or the user status on Sina Weibo, to search for users (Figure 5-40). The user can also use other options, “Find Classmates,” “Find Coworkers,” “Find MSN Contacts,” and “Find Email Contacts” to search for users.

Figure 5-40 Screenshot: Sina Weibo's search engines for user accounts

For verified users, Sina Weibo has a different search engine (Figure 5-41). The search engine is a simple search bar with a number of most searched verified users below it.

Underneath the search engine, links to the "Hall of Fame" ("Mingrentang" or "名人堂"), and the "Top Chart" ("Fengyunbang" or "风云榜"), two apps where the user can browse popular verified user accounts are listed.



Figure 5-41 Screenshot: Sina Weibo's search engine for verified users

Like Twitter, Sina Weibo also offers advanced search option for content search.

However, besides the criteria of time and place, the search criteria of Sina Weibo's advanced search engines are different from Twitter's.

Unlike Twitter, where the search affords a more accurate search for content and debates surrounding specific issues, events, or topics, the advanced search engine on Sina Weibo puts more emphasis on the internal classification of content. The "keywords" search has only one line and so does the user search (Figure 5-42).

Figure 5-42 Screenshot: Twitter’s advanced search engine

Other criteria, however, are very specific. The “Types” line, for instance, has the following options:

- Original
- From users I’m following
- From verified users
- Photos
- Videos
- Music
- Links

Sorting options are also included in the search engine, “Mix,” “Real-time,” and “Trending.”

These options for content types and sorting options are not included in the search engine itself on Twitter. Rather, they are presented on the search results page on Twitter. In other words, Twitter’s search engine separate the search and the sorting processed, so that the

search can focus on finding the right content and the sorting process can focus on how to view this content. In the case of Sina Weibo, however, the two processes are both built in the search engine, i.e., the search engine is designed to do everything at once. With that goal, the engine can become so complex and useful features can be overlooked, such as a sophisticated keywords search, considering the vast amount of content on the network.

Finally, unlike Twitter's predominantly open search fields where the user's input is not constrained to options provided by the system, Sina Weibo's search engines, the user search engine and the advanced search engine to be specific, use many dropdown lists of options for the user to choose from when input search information. For instance, the "Location" line in Twitter does not have any options for the user to choose from. Rather, the user can type in any location or use geotagging tool to automatically tag the location where they use the service. On Sina Weibo, however, the user is asked to choose from two levels of location options, the first being province-level administrative regions in China and the "overseas" option, and the second being city-level administrative regions in China and countries. The user is not allowed to type in a location.

This design feature is consistent with Sina Weibo's tendency to classify content and define the categories. The user has to comply with the organization of the system and is confined to the options provided. In this regard, the design of search engines on Sina Weibo thus is more system-oriented and less user-oriented than that on Twitter.

5.5 Page design

Within the scope of this project, the comparison of page design includes two broad aspects, the page layout and style design and the use of screen space. The first subsection

concerns with basic page layout and general style issues, with the emphasis on consistency and general style choices. The second subsection concerns with how screen space is used on the two SNSs, and what the two SNSs' priorities in using screen space are.

5.5.1 *Template design*

Like the navigation systems discussed in section 5.1.3, the page layout and style of Twitter is consistent throughout the SNS, while Sina Weibo has very different page layout and style for each section of the SNS.

The basic page layout on Twitter is a two-column design that includes three components—a global navigation bar on the top of the page, a main content area in the right column, and a narrower left column displaying submenus and small content boxes. The content in the content boxes is consistent on each page, except for the pages in the “Me” section, and the search results page.

In addition to the page layout and navigation, the style of page design, i.e., color schemes, backgrounds, and fonts, is also consistent on Twitter. The SNS offers some options for the registered user to customize some elements of the page design, such as setting the background and the color of texts and the overlay. The user can also choose from twenty preset themes to customize their pages, all of which are free and available to all registered users. The user's page customized design applies to all the pages they view when they are logged in, except for other users' “Me” pages and child pages, which will be consistent with the profile owners' customizations.

Sina Weibo, on the other hand, has inconsistent page layout and style, as shown in Figure 5-27 in section 5.1.3. The pages of the “Home” section, for instance, use a three-column

design, but some pages in the “User” section use a two-column design and some others, such as the “Photo” page, use a one-column design. The content in the smaller columns change from page to page as well.

Besides page layout, the styles of the pages on Sina Weibo are also inconsistent. Similar to Twitter, Sina Weibo also offers the user options to customize their pages. In fact, the customization options, also called “skins,” offered by Sina Weibo are much greater in number. Some of these options are not free, or only available to users with certain statuses. However, the customization only applies to the pages on in the “Home” and the “User” section. Other pages, even including those that are essential to the core function of the site, such as the “Search users” page, have completely different styles.

Another characteristic of Sina Weibo’s page design is that the sections and subsites/apps tend to have thematic designs, i.e., backgrounds, headers, and graphics, which fit their content and functions. For instance, the “Huati” module uses graphic elements based on the “#” symbol and conversation bubbles to symbolize *hashtags* and conversations (Figure 5-43).



Figure 5-43 Screenshots: the design of the “Huati” module on Sina Weibo (top) and its graphic details (bottom)

Similarly, the “Hot” app on Sina Weibo uses a red-based color scheme and graphic elements such as volcanoes to symbolize “hot,” i.e., popular, content, as well as graphics based on the “#” symbol to indicate that this is an app for topics (Figure 5-44).



Figure 5-44 Screenshots: the design of the “Hot” app on Sina Weibo (top) and its graphic details (bottom)

Besides inconsistencies resulting from intentional design decisions, some pages with the same layout in the same section appear to unintentionally look very differently in terms of color scheme, backgrounds, and font sizes, etc. For instance, as Figure 5-45 shows, the pages “Followers” and “Invisible following” in the same section, “Connection center,” have inconsistent styles.



Figure 5-45 Screenshot: “Followers” (top) and “Invisible following” pages in the “Connection center” on Sina Weibo

These characteristics of page design of Twitter and Sina Weibo suggest different design priorities of the two SNSs. While Twitter prioritizes consistency in design with options for the user to customize the looks of the pages, Sina Weibo seems to prioritize variety and thematic design according to content and functions of the pages over the overall consistency of the SNS’s looks. These differences have two implications in consideration of the functions of page design.

First of all, page design functions as visual cues for navigation. Consistent page design draws boundaries between parts of the SNS and the SNS and the rest of the web, and provides visual cues to help the user understand where they are in the SNS when they navigate through the pages. In this sense, Twitter's consistent design, not only the consistent page design throughout the SNS, but also the consistent and clear boundaries between customized pages, helps the user better navigate the SNS. Sina Weibo's distinct designs for different parts and subsites within the SNS also help the user to understand the function and content of the page they are on, which is helpful as Sina Weibo's SNS has a much larger scope than that of Twitter. However, Sina Weibo lacks an overall consistent plan for the page design, and therefore, the design can be confusing and disorienting to the user at times.

The second function of page design, or more accurately, a consistent page design, is to help present a unified identity of a SNS. Having a distinct and recognizable look for all the pages is essential for the SNS to have a unified image that represents a unified identity. With its consistent design Twitter creates a unique image on the web that is recognizable to users. In Sina Weibo's case, the global navigation bar with the Sina Weibo logo serves such identifying and branding purposes, but it is not displayed on some pages and subsites. Other elements in the page design do not contribute to this goal as much. Considering, especially, that Sina Weibo is one of a number of the SNSs/services of Sina.com, and almost all the major portal SNSs in China provide microblogging sites/services, the page design of Sina Weibo does not play a strong role in presenting a unified identity for the SNS.

5.5.2 Text, graphics, and the use of screen space

Twitter originally is designed for the text-only cell phone SMS system, and the SNS—the web interface of the microblogging system—was text oriented as well, with minimal graphics. Over the years, Twitter added the photo and video sharing features to the service, and its SNS design has according to evolved to include many more graphic elements. Nevertheless, the tradition of what I call its “textual purity” is not lost completely. Twitter’s design is still quite text-based and the use of graphic elements is discreet both in the design of the functional features and in the content presentation. Sina Weibo, on the other hand, uses graphic elements much more extravagantly than Twitter, which is illustrated below.

First of all, a comparison between the graphic elements used in the functional features on Twitter and Sina Weibo reveal the following characteristics of the sites. The use of icons on the two SNSs, for instance, has the following characteristics:

Twitter	Weibo
Small in number	Large in number
Monochrome, narrow color range	Multicolor, broad color range
Mainly used to mark actions	Mainly used to mark categories

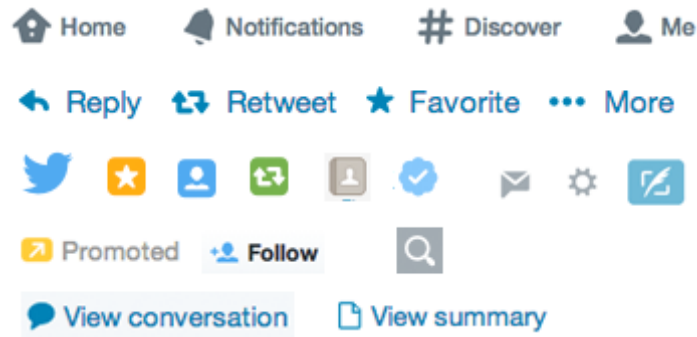


Figure 5-46 Screenshots: icons used on Twitter (complete)

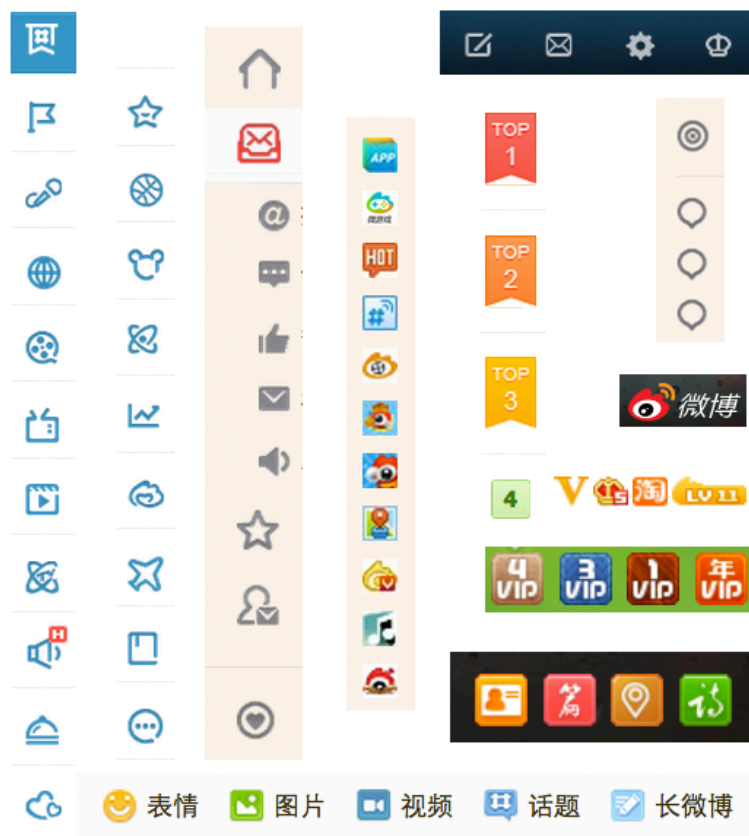


Figure 5-47 Screenshots: icons used on Sina Weibo (incomplete)

First of all, Twitter uses far fewer icons than Sina Weibo. The icons shown in Figure 5-47 are all the icons used on Twitter, yet that is an incomplete representation of the icons used on Sina Weibo. In fact, almost every section and subsite of Sina Weibo has its own set of icons.

Secondly, Twitter's icons are all monochromatic images, i.e., each image contains only one color. Many icons on Sina Weibo, however, are multicolor images, often containing highly contrasting colors such as blue and red in a single image. In addition, the range of colors used for all icons on Twitter is much narrower than that on Sina Weibo. Twitter's icons are in four colors, blue, orange, green, and gray, with some variation in saturation and brightness. The colors used in Sina Weibo's icons, however, cover a much broader spectrum of colors.

Third, on Twitter, icons are mainly used to mark actions that the user can take to interacting with the content and users, from view, *tweet*, *retweet*, *reply*, and *favorite*, to *follow*, and direct message. On Sina Weibo, however, icons are mainly used for categories of content and users, as well as ranks and the user levels.

The designs of the icons on the two SNSs, therefore, indicate different functions. On Twitter, the function of icons mark affordances of actions and make them more visible. At the same time, the simple design and the discrete use of them suggest that the decorative functions of these graphic elements give way to simple design that avoids distracting users from their more important tasks of communicating with other users. The complicated and colorful icons on Sina Weibo that mainly mark user statuses or information categories, on the other hand, suggest that their two main functions are, first, marking identities within a larger structure, and second, decoration. However, the busy use of these graphic elements may affect users' efficient and effective use of the SNS if their goal is to communicate hard information with other members in the network.

The designs for content presentation on the two SNSs have distinct traits as well. In general, Twitter is text-oriented, has less white space, and thus content is denser than Sina

Weibo, i.e., in the same space, Twitter display more entries of content, be it *tweets* or user accounts, than Sina Weibo, which allows the user to browse more *tweets* or user accounts, i.e., bits of information, than Sina Weibo. On the other hand, Sina Weibo tends to present much more information in a *weibo*, including much complementary and contextual information, at the expense of the speed of information flow.

These characteristics are illustrated in the *timelines* of these SNSs (Figure 5-48).

Twitter's *timeline* is text-based. It does display an image when it is included in a *tweet*, but one *tweet* only can include a single image, a portion of which, however, is featured in the entry, taking up the entire width of the *timeline*. Besides, although Twitter shows the summary of articles linked in the *tweet* in its preview mode, which can include an image, in the default mode, no image from linked article is displayed. Such design of presentation prioritizes the main content, i.e., the *tweet*, and strips off any other additional information surrounding the *tweets*.



Figure 5-48 Screenshots: posts in the *timeline* on Twitter (left) and Sina Weibo (right)

In these ways, tweets are presented in small chunks, slimmed down to their bare bone.

As individual units of information, *tweets* do not contain much contextual information.

However, Twitter uses other ways to provide some contextual information for *tweets*. Rather than including contextual information within each *tweet*, the design of Twitter externalizes such

information by visually grouping *tweets* that relate to each other. For instance, the “blue line” in the *timeline* that link a conversation provides users visual cues to form a context for tweets (Figure 4-49). In this way, contextual information is externalized, which allows the unit of information to remain small in size, while providing some contextual information of the viewers.

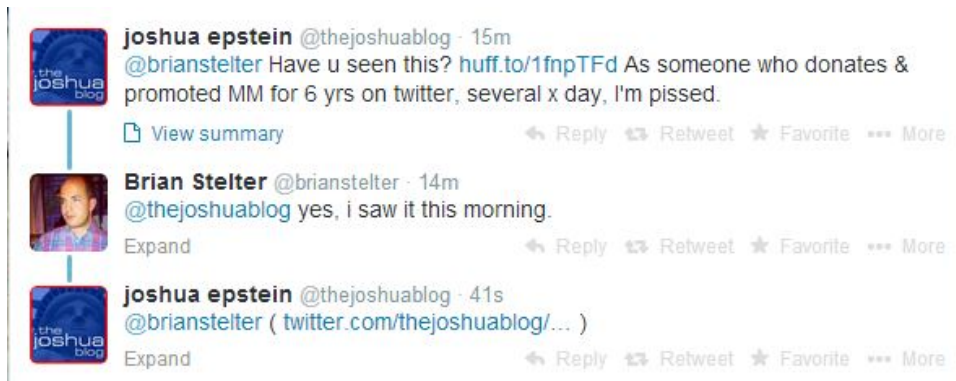


Figure 5-49 Screenshot: a conversation in a *timeline* between users followed by the same user viewed by the user

Unlike Twitter, Sina Weibo displays much additional information along with the main content, i.e., *weibos*. For instance, the accompanying images of linked articles are presented with *weibos*. Compared to Twitter’s treatment of context, Sina Weibo tends to include context within each *weibo*. For instance, each *reply* or a *share* (repost) on Sina Weibo also contains the original *weibo* in a content box within the *weibo* entry (Figure 5-50). Such design of content makes each *weibo* much bulkier and taking much more space than a *tweet*.

TwitsReading @ReadLikeATwit · 12 Sep 2012
RT @jinealogy "The power of people who vote en bloc and don't care about the facts can be fearsome." tiny.cc/nhvlgw
Expand Reply Retweet Favorite More

JL Clyde @ninsiana0 · 13 Aug 2012
"Why We Should Care About the Homeless Vote" by @jinealogy (via @AlterNet) bit.ly/P3pCXq #OSLC
Expand Reply Retweet Favorite More

Lauren Kelley @lauren_kelley · 10 Aug 2012
Read @jinealogy's piece on why we all need to care about the homeless vote: bit.ly/P9TT8H
Expand Reply Retweeted Favorite More

Chopstik @Chopstik · 6 Aug 2012
Flood on Weibo Still Going Strong wp.me/p1y2e8-fw via @jinealogy
Expand Reply Retweet Favorite More

Esmeralda_爱丝美拉达 ★ ☆
@白话话白
卡夫卡式的小说。永远找不到的原因，永远等不到的结果，永远满足不了的欲望，永远无法保存的记忆。#读书##小说##石黑一雄#

2月3日 02:12 来自iPhone 5s 转发(1) | 评论(1)

2月3日 11:36 来自iPhone客户端 | 举报 转发 | 收藏 | 评论

白话话白
没有被封杀？有意思。😄 //@Henry老李:Yep
@白话话白
The Hunger Game 有没有在国内上映？
2月2日 05:59 来自iPhone 5s 转发(1) | 评论(3)

2月3日 01:54 来自iPhone 5s 推广 | 转发 | 收藏 | 评论

Esmeralda_爱丝美拉达 ★ ☆
做了大盘鸡，好友圈轻轻晒一下，要去老师家聚餐了。本来觉得好糊啊，卖相不好，因为土豆都化掉了。。拿筷子挑出了肉看着还凑合😄。童鞋们，尝到后满意要记得点赞哦~@扎宝 @飞过时间海nn @米道 @白话话白 @慕慕n-n 我在：
美国Atlanta

美国,Georgia,Atlanta,Druid Valley Dr NE,30329 - 显示地图
1月31日 04:51 来自iPhone客户端 (6) | 转发 | 收藏 | 评论(8)

Figure 5-50 Screenshots: *retweets/shares* and *mentions* on Twitter (top) and Sina Weibo (bottom)

In addition, because more information is included in a *weibo*, especially with more images, Sina Weibo's design very often leaves large white space in the entry, which, in addition to the content itself, makes *weibo* entries much bulkier than *tweets* and each *weibo* takes much more screen space than each *tweet*. As a result, more *tweets* can be displayed in the same space than *weibos*, which allows users to browse a larger number of posts in the same screen space with the same amount of time on Twitter than on Sina Weibo. These design differences indicate that Sina Weibo does not give the same priority to the speed of the flow of information as Twitter does, which leads us to the next point about context.

The designs of Twitter's "Who to follow" page and Sina Weibo's "Find people" page exhibit the similar design tendencies as the *timelines* (Figure 5-51). First of all, each entry on Twitter's "Who to follow" contains a user's textual information and a standard *timeline* AVI (48 x 48 px). On Sina Weibo's "Who to follow" page, each entry contains the textual information about the user and a much larger AVI (180 x 180 px). In addition, it also displays, in the extended view, thumbnail images that are contained in the latest *weibos* the user has posted.





Figure 5-51 Screenshots: “Who to follow” page on Twitter (top) and Sina Weibo (Bottom)

The user information included in each entry on the two SNSs varies as well. On Twitter, besides the AVI, each entry includes the *full name* and the *username* of the user, a short introduction to the user account, and the connections between this recommended user account to the user via other users who have connections with both of them. A “Follow” button and an action icon are also included in the entry. The “Follow button” affords the user to instantly follow this recommended user. The action icon, on click, shows the options of actions in a drop-down menu, which afford the user to take other actions with regard to the recommended user, such as *tweet* to this user, add or remove the user from lists, and *block* the user (Figure 5-52).



Figure 5-52 Screenshot: the action options on Twitter’s “Who to follow” page

On Sina Weibo’s “Find people” page, each entry includes the user’s *screen name*, a short introduction to the user, and the connections between the recommended user and the user via other users connected to them both. In addition, it also displays information such as the recommended user’s gender, schools, location, and the numbers of users they are *following*, *followers* and posts. In the extended view, the entry displays more connections between the two users such as common tags of interests, locations, etc., and the latest images that the recommended user has posted. Besides user information, a “Follow” button is also included in the entry, which affords the user to *follow* this recommended user instantly. However, the entry does not include action button like the one on Twitter that would allow the user to take actions with regard to the recommended user directly on this page.

It is worth noting that such design of user profile also reveals the similar differences in the two SNSs’ treatment of contextual information. The context on Twitter in this case is external to each user profile, presented by simple visual grouping of user accounts. An account’s context, therefore, depends on its company. Sina Weibo, however, tends to include the contextual information of an account within the presentation of the *profile* itself.

Similar to the case of *tweets* and *weibos*, due to the AVI sizes and the information presented in the entries of user *profiles* on these pages, the information in each entry on Twitter is much denser and the white space is much less on Twitter than on Sina Weibo, which means that each entry on Twitter takes up less space than that on Sina Weibo. This design allows Twitter's users to browse a larger number of entries at a time without scrolling down than Sina Weibo users, and thus speed up the process of browsing. At the same time, the action options on Twitter also encourage and speed up interactions between users. Sina Weibo, instead of prioritizing speed and actions, seems to prioritize the completeness of user's information, even at the expenses of slowing down the moving of information.

5.6 Summary

In the comparison of the design aspects related to the organization and retrieval of content between Twitter and Sina Weibo, a number of different traits have emerged. Before further discussion, let me review and summarize these traits below:

Table 5-4 Summary of findings

Twitter	Sina Weibo
Simplicity, integration, and consistency <ul style="list-style-type: none"> - Twitter provides focused services that center on publishing and sharing content, and the design reflects this focus. - Information is structured in a single 	Complexity, specification, and inconsistency <ul style="list-style-type: none"> - Sina Weibo provides a broad range of services, and, consequently, the design of the SNS is much more complex and broader in scope than that of Twitter, consisting of

<p>hierarchy that is both narrow and shallow.</p> <ul style="list-style-type: none"> - Simple, clear, and standardized designs of the navigation and the page layouts that are consistent throughout the SNS. - Simple and integrated search engine design, prioritizing accurate search based on keywords. - Text-based clean design that uses a small number of monochromatic graphics. 	<p>numerous subsites and apps.</p> <ul style="list-style-type: none"> - Information is structured in multiple complex, i.e., broad and deep, hierarchies. - Complex designs of the navigation and the page layouts that are inconsistent and specific to sections of the SNS. - Multiple complex search engines for specified content types, prioritizing searching by identifying information and classification rather than keywords. - Busier design using a larger number of multi-colored graphics.
<p>Data-biased (user-centered), <i>a posteriori</i>, bottom-up content organization</p> <ul style="list-style-type: none"> - Content streams are the most basic and predominant organizational structure for content. - Content is customized for users based on analysis of the data of use 	<p>Logic-biased (system-centered), <i>a priori</i>, top-down content organization</p> <ul style="list-style-type: none"> - Besides content streams, hierarchies are often used to organize content. - Besides content customized for users, a large amount of content is organized in specific categories that are defined

<p>particular to the users; topical categorization is used discretely and the categories tend to be defined from bottom-up, i.e., <i>a posteriori</i> categorization.</p> <ul style="list-style-type: none"> - The topical organization of content is based on data and done by algorithms automatically; no manual monitoring is required; no <i>hashtag</i> is required to mark topics. - Advertisements are displayed as promoted content and customized for individual users. 	<p>in some cases from top-down, i.e., <i>a priori</i> categorization.</p> <ul style="list-style-type: none"> - The topical organization of content is monitored by the web master; <i>hashtags</i> are required for users to “create” a topic; topics are “hosted” by eligible users approved by the SNS. - Besides customized advertisements as promoted content, static advertisements are displayed as banners as seen on traditional SNSs.
<p>Prioritizing fast flow of content</p> <ul style="list-style-type: none"> - Content is organized in small chunks, i.e., units as <i>tweets</i> or user profiles. - Content does not include context, which is presented visually external to content. - The white space is minimum, which minimizes the space occupied by a unit of content and maximizes the browsing 	<p>Prioritizing “complete” content with context</p> <ul style="list-style-type: none"> - Content is organized in larger chunks, including more information in each unit of content. - Content includes context. - The white space are larger and irregular due to different elements included in a unit of content, which results in larger space occupied by a

speed and content flow.	unit of content and slows down the speed of browsing and content flow.
<p>Individual oriented</p> <ul style="list-style-type: none"> - Individual's preference is prioritized; content is customized for individual users based on their preferred content. - Context of content, such as related news story and the ranking of the content's popularity in the community, is not explicitly articulated. - No specially designated community space for users; communities are formed through each individual connection. - Content organization prioritizes content relevance; the relationship between users are based on the content the users publish and prefer. - Search engines prioritize searching for relevant content for individual users with features such as more sophisticated keywords search. 	<p>Community and context oriented</p> <ul style="list-style-type: none"> - Content organization reflects the entire community's preferences, via aggregated content display, charts, and rankings, which have very little relevance to each individual user's preferred content. - Context of content is explicitly articulated. - Many apps and subsites are designated spaces for content published to communities. - Content organization reflects strong consideration of types of relationships between the users, in addition to content relevance; the content is prioritized or devalued based on the explicit statuses of the sources and their relationship to the users who consume the content.

	<ul style="list-style-type: none">- Search engines prioritize searching for content and users by identities and relationships, instead of the relevance of the content itself; the keyword search is less sophisticated than Twitter.
--	---

6 THE SHAPES OF ACTIONS: POSTING AND MOVING CONTENT

Twitter and Weibo offer features that afford users to take actions and engagement with each other's content. This chapter focuses on the features that afford public or semi-public communication among users on the two SNSs, i.e., features that afford users as content generators to post *tweets/weibos*, *retweets/shares*, *replies/comments* within the two networks respectively and those that afford users to move content across the web beyond the two networks such as embedding content and live feeds. Communication directly sent to a user via DM, however, will not be included in this discussion.

6.1 Posting content: text and media

Posting content is the core function of Twitter and Sina Weibo. It allows users to post original content and share content on the web in the networks. The designs of the networks share many similar features that afford content posting, but Twitter and Sina Weibo approach differently to designing these features are quite different. Twitter's features are designed towards simplicity and a "one-size-fits-all" solution. The design fully utilizes the power of links and shapes the SNS into a hub through which information flows. The design features of Sina Weibo, on the other hand, are more elaborate and specific to the types of content. Rather than utilizing links that connect to the entire web, many of the features directly connects to other services of Sina Weibo's parent website Sina.com.

6.1.1 Post editor

On both platforms, users can access a post editor either on the Home page, or via a shortcut icon in the global navigation bar on the top of each page. Twitter’s Home page editor is positioned on the left column, occupying about a third of the width of the page, leaving the entire main content area for the *timeline*. The simple design of the editor includes a text box, a photo-sharing tool, a geotagging tool, a word counter, a “Hootlet” button, which allows users to use a third-party service, HootSuite, to schedule and manage tweets, and a “Tweet” button. (Figure 6-1)

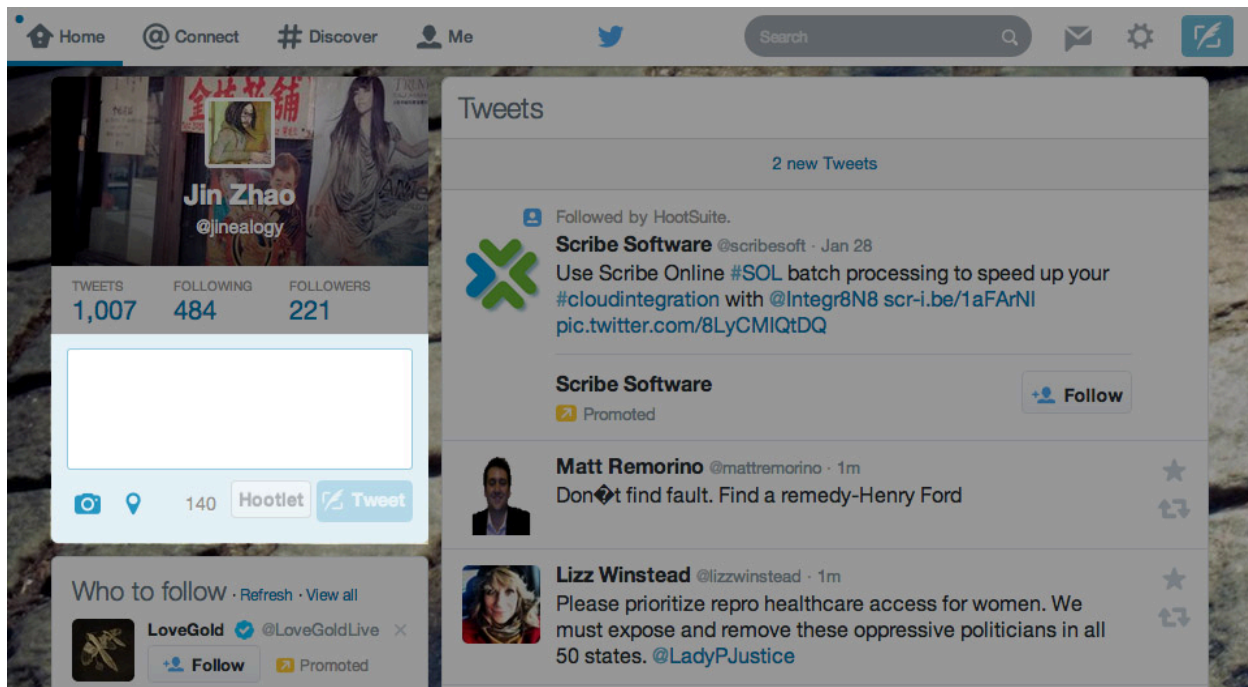



Figure 6-1 Screenshot: Home page post editor on Twitter

Twitter’s editor is accessible via the editing icon “” on the global navigation bar on the top of all pages has exactly the same features that the editor on the Home page has (Figure 6-2). This shortcut to the post editor allows users to compose and post a *tweet* wherever they are on the SNS.

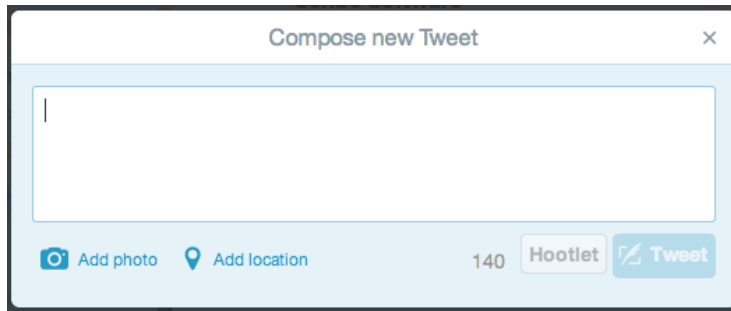


Figure 6-2 Screenshot: Twitter’s overlay post editor accessible via shortcut in the global navigation bar

On Sina Weibo, the Home page editor is positioned on the top of the main content column in the center of the page between two side columns, occupying more than half of the width of the page (Figure 6-3). The post editor is positioned above the Home *timeline*, taking the most prominent position on the page.

The editor has a number of features built in. Besides a text box, a photo sharing tool, a word counter, and a post scheduling and managing tool, which, however, is a built-in tool rather than a third-party application as on Twitter, and the “Publish” button, the editor also includes a number of tools specific to the types of content posted, such as video, music, and polls, and other tools such as an emoji tool and a topic tool (Figure 6-3).



Figure 6-3 Screenshot: the post editor on the Home page of Sina Weibo


In addition, Sina Weibo users can also access a post editor via the editing icon “” on the global navigation bar on the top of the pages closely associated with the account. This shortcut editor, however, only has a few basic features—a text box, an emoticon tool, a photo-sharing tool, a privacy tool, and the “Publish” button—which is a stripped down version of the Home editor that is much more similar to Twitter’s simple design of the post editor. To access to full set of features for posting, the user has to navigate to the Home page.



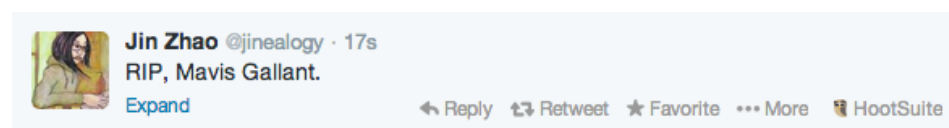
Figure 6-4 Screenshot: the post editor accessible via the editing icon on Sina Weibo

The differences between the designs of the editors on the two SNSs, names, Twitter’s simplicity and consistency versus Sina Weibo’s complexity and inconsistency, are running

themes in the design of the features and tools compared in this chapter. In the remaining of this section, I compare the features of the main editors on Twitter and Sina Weibo in further details to illustrate the different design approaches of these networks as stated above.

6.1.2 Text and Links

The basic form of content on Twitter and Sina Weibo is textual, which consists of 140-character posts—*weibos* on Sina Weibo or *tweets* in Twitter’s case. The 140-character limit is an invention of the creators of Twitter, which is originally designed as a web solution to read and share mobile text messages via the short messaging system (SMS) among a group of contacts. The limitation of a SMS message was 160 characters, and the creators of Twitter limited each tweet to 140 characters so as to ensure the message, with the sender’s name, which was given a 20-character space, to be able to be sent successfully via SMS. With the development of smart phones and apps specially designed for websites, this limitation seems to be archaic. However, the 140-character limit of a single *tweet*, the “micro” aspect of “microblogging,” has become one of the most defining features that constitute Twitter’s identity, and has been preserved even though the technological limitation that was the reason for the design has been long overcome. Since microblogging was introduced into China, the 140-character limit has been preserved as a convention on Chinese microblogging sites as well. (Figure 6-5)



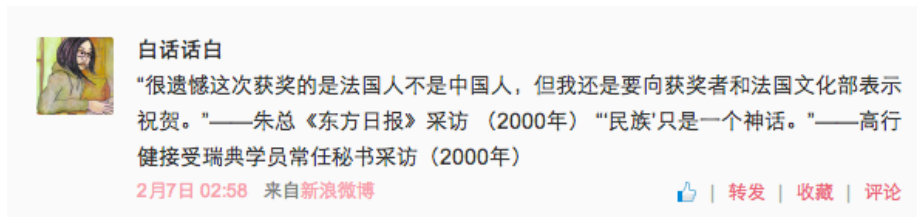


Figure 6-5 Screenshot: examples of a plain text *tweet* (top) and a plain text *weibo* (bottom).

Unlike Twitter, which does not solicit content from the users, Sina Weibo's text editor for new *weibo* often has prompts related to current events. With some prompts, when the user puts the cursor in the editor, a *huati* or topic related to the prompt will be automatically generated. For instance, Figure 6-6 shows a prompt that reads: "What do you feel about going to work on the last Sunday before the New Year's? Post a *weibo*~." In Figure 6-7, a *huati*, "working on Sunday," has been automatically generated when the user put the cursor in the text editor. Such direct solicitation of content and content on specific topics is not seen on Twitter.

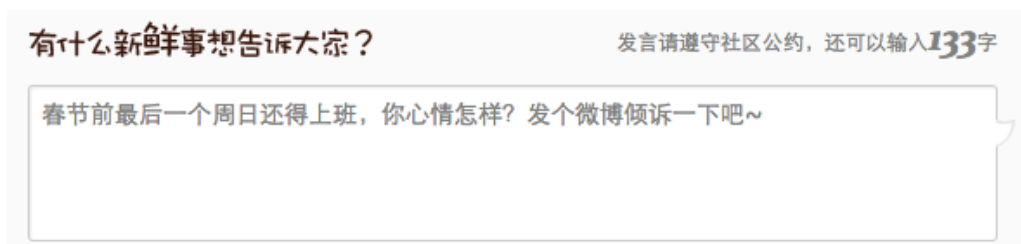


Figure 6-6 Screenshot: a prompt for content input in the post editor on Sina Weibo

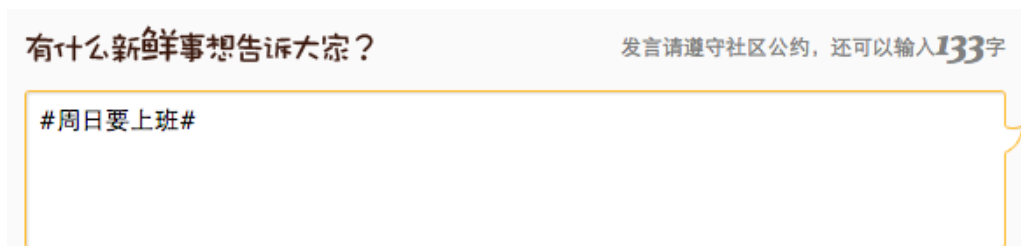


Figure 6-7 Screenshot: an automatically generated topic in the post editor on Sina Weibo

In addition to the original text, textual *tweets* and *weibos* can contain URLs that link to webpages or web objects. Both Twitter and Sina shorten URLs automatically so that they occupy fewer characters than the originally URLs. On Twitter, a URL occupies the space of 23 characters. On Sina Weibo, the space occupied by an URL varies depending on the length of the shortened URL.

Figure 6-8 is a textual *tweet* that contains a hyperlink to an article as appears on a *timeline*. When the user clicks anywhere other than the link within the text area, the *tweet* will expand to show function links, a summary of the article that the hyperlink directs to, stats of *retweets* and *favorites*, and a textbox to input a *reply* (Figure 6-9). To return to the initial collapsed view, the user only needs to click on any spot other than links in the text body of the *tweet*. The user can also click on the link to the shared article in the *tweet* and navigate to the original article directly.

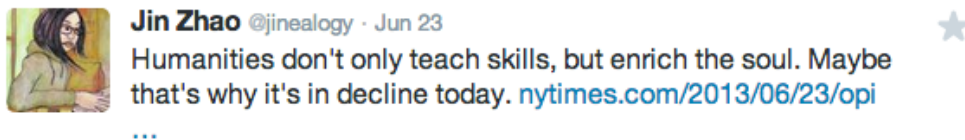


Figure 6-8 Screenshot: an example of a tweet that contains a link to an article



Figure 6-9 Screenshot: the expanded view of a *tweet*

A collapse *weibo* on a timeline presents more information than a collapsed *tweet* does. Besides the main text and the hyperlink, if it contains one, a *weibo* also shows a thumbnail of an image in the original article, stats for *shares*, *favorites*, *saves*, *comments*, etc. If the shared article is from Sina.com, Sina Weibo's parent website, a preview of the article is shown as an image with a tags that says "Sina News" attached to the right, as shown in Figure 6-10. On click, the *weibo* will expands to include a preview of the article, two title links and a "read full-text" button, all linking to the original article, and a list of other "related articles" on Sina.com (Figure 6-11).

【法国总统奥朗德：我和女友分手了】在法国杂志曝光奥朗德与女演员偷情后，奥朗德以个人名义宣布：“我已经结束了与瓦莱丽一起的共同生活。”两人自2006年同居始终没有结婚，瓦莱丽也一直被视为法国“第一夫人”。分手毕竟不是一件开心的事，不过奥朗德的支持率却不降反升。详细<http://t.cn/8FfqgqZ>



1月26日 07:49 来自新浪微博

👍(521) | 转发(878) | 收藏 | 评论(511)

Figure 6-10 Screenshot: an example of a *weibo* that contains a link to an article on Sina.com

【法国总统奥朗德：我和女友分手了】在法国杂志曝光奥朗德与女演员偷情后，奥朗德以个人名义宣布：“我已经结束了与瓦莱丽一起的共同生活。”两人自2006年同居始终没有结婚，瓦莱丽也一直被视为法国“第一夫人”。分手毕竟不是一件开心的事，不过奥朗德的支持率却不降反升。详细<http://t.cn/8FfqgqZ>

[收起](#) | [法国总统奥朗德宣布与女友分手](#)

法国总统奥朗德宣布与女友分手

来源：新华网 发布于： 2014年01月26日 03:59:38

法国总统奥朗德宣布与女友分手

新华网巴黎1月25日电 (记者 尚栩)法国总统弗朗索瓦·奥朗德25日通过法新社宣布已经与瓦莱丽·特里耶韦莱分手。

根据法新社的报道，因为涉及“私生活”，所以奥朗德以个人名义而不是以国家元首的名义宣布：“我已经结束了与瓦莱丽·特里耶韦莱一起的共同生活。”

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- 法租车公司广告调侃奥朗德:乘车去幽会更隐蔽
- 视频：劈腿传言后奥朗德支持率不降反升

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1月26日 07:49 来自新浪微博

👍(521) | 转发(878) | 收藏 | 评论(511)

Figure 6-11 Screenshot: an example of the preview of an article on Sina.com

The preview for articles, however, is not available for all articles from the web. Figure 6-12 shows a *weibo* that shares an article on Nandu.com, and no option for preview is provided. This privilege for article on Sina.com, and the list shown early that promoting content on Sina.com, can be seen as examples of Sina Weibo's effort to promote content and other products that its parent company has to offer, which is a distinct characteristic of Sina Weibo compared to Twitter.



Figure 6-12 Screenshot: an example of a *weibo* that contains a link to an article on an external website other than Sina.com

The system also grabs a featured image or any image, depending on availability, from the webpage the URL links to and presents it under the textual *weibo* in the collapsed view. A *weibo* with such an image attached is classified by the system as a photo *weibo*, along with the *weibos* that contain images users intend to post. Some consequences of this feature include a larger space occupied by a single *weibo* than that occupied by a *tweet* on Twitter, which affect the efficiency of using the screen space. At the same time, the image can compete with the textual content for the viewer's attention and distract them from the textual content. In both cases, the design can interfere with the user's experience and slow down the process of browsing.

6.1.3 Photos

Twitter provides the users simple photo sharing features. Users can share a single photo in a *tweet* with or without textual description, using the “Add photo” button in the *tweet* editor (Figure 6-13).

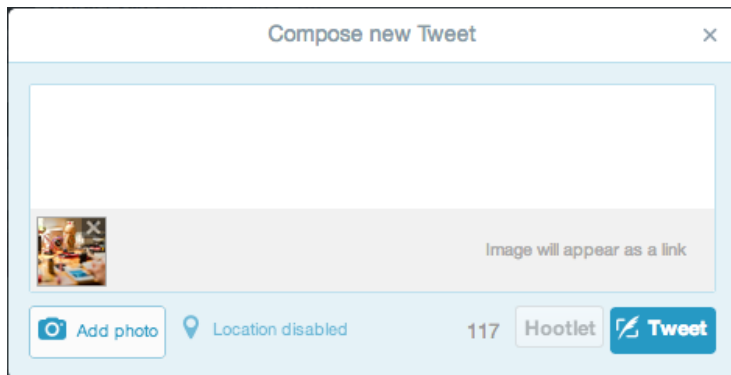


Figure 6-13 Screenshot: Twitter’s photo sharing

Once a photo is posted as or with a *tweet*, the *tweet* will contain a hyperlink that links to the photo on Twitter. The user can view tweet in the collapse and the expand modes (Figure 6-14).



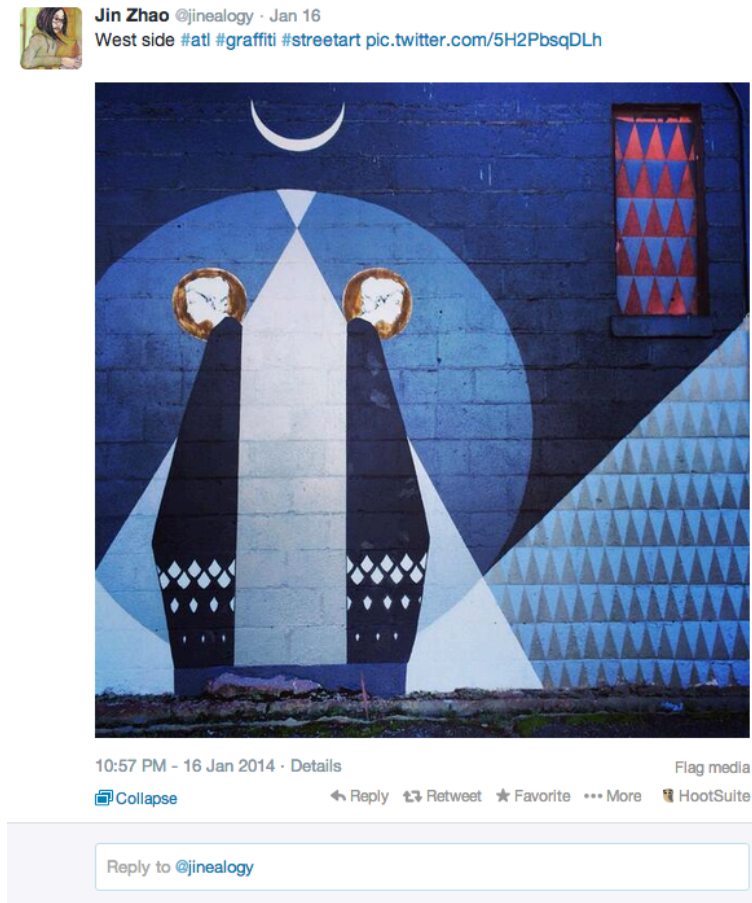


Figure 6-14 Screenshots: an example of a *tweet* that contains a photo, the collapse view (top) and the expand view (bottom)

In the expanded view, by clicking on the photo, the user can view it in an overlay gallery. On either side of each photo, a clickable arrow is placed for users to navigate back and forth the photo stream that contains all the photos *tweeted* by the user (Figure 6-15). This design allows users to browse photos in a stream.

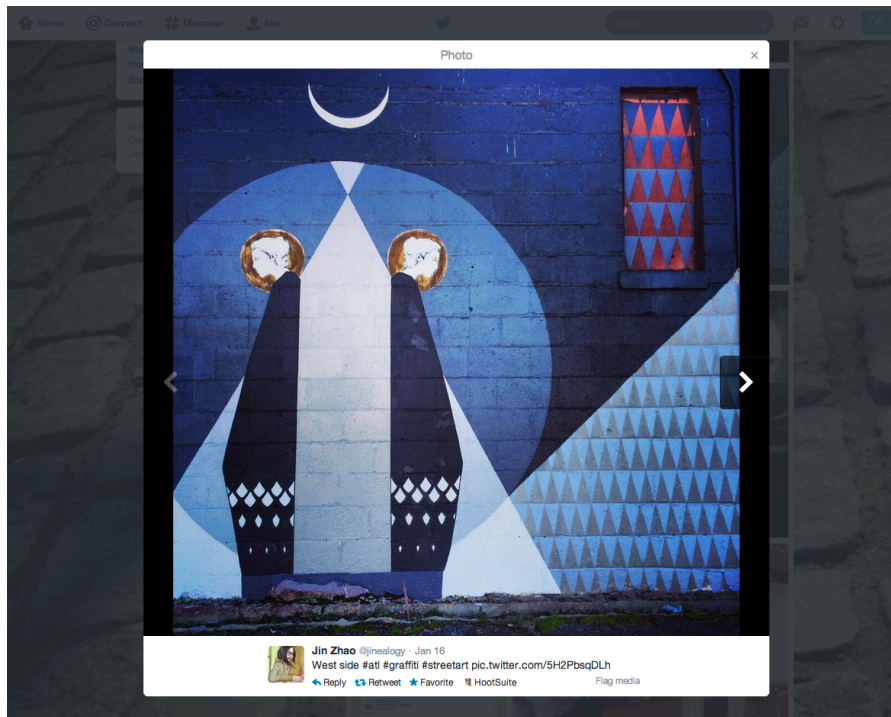


Figure 6-15 Screenshot: an example of the overlay gallery on Twitter

Twitter's photo sharing is a built-in feature, which affords users the ability to share photos from the hard drives of their devices on Twitter directly and independently. In other words, Twitter users are not required to share photos via other websites or social media outside Twitter, such as Instagram, which is nevertheless an option. In addition to viewing photo *tweets* with other *tweets* on the live stream *timeline* and the profile *timeline*, a visitor can also view all the photo *tweets* from a user in the Photos and videos *timeline* on the user's profile (Figure 6-16). A visitor can also view individual photos as a photo stream in the overlay gallery view by clicking on a photo in the *timeline*.

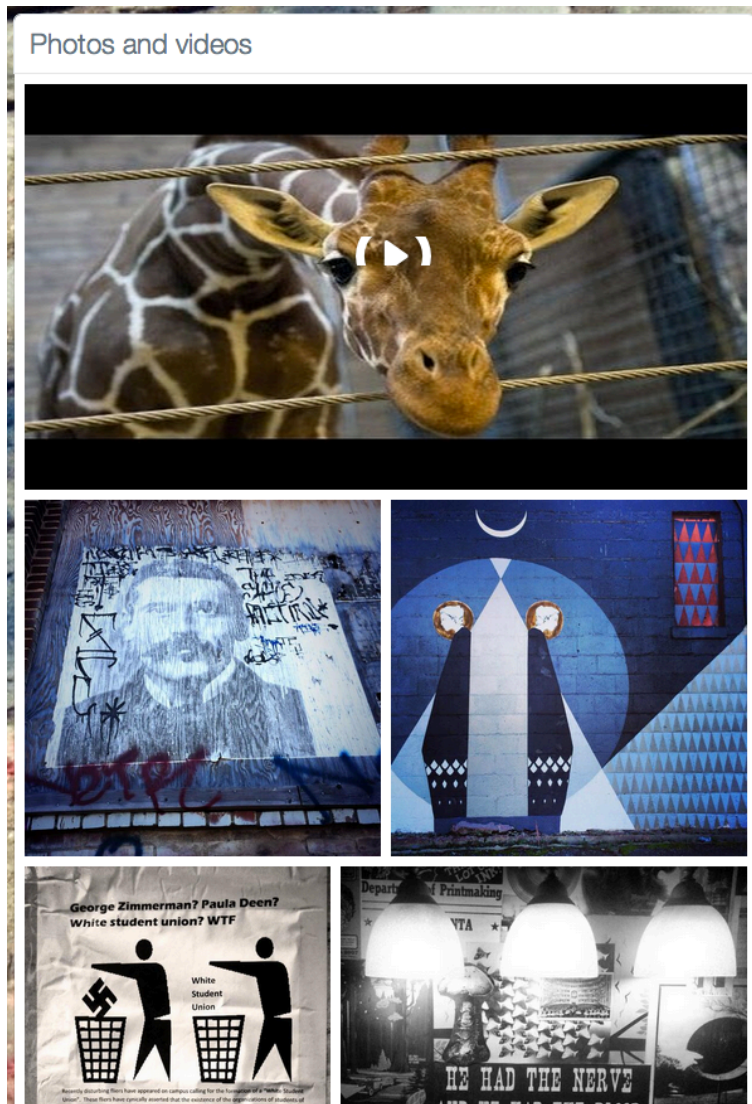


Figure 6-16 Screenshot: “Photos and videos” *timeline* on Twitter

Compared to Twitter, the built-in photo sharing features on Sina Weibo are much more elaborate. First of all, unlike Twitter, which only allows a single photo to be attached to a *tweet*, Sina Weibo allows users to attach multiple photos to one single *weibo*. When posting photos, Sina Weibo users can choose one out of four options, the basic “adding photo(s)” option and “collage,” “screenshot,” and “upload to albums” options (Figure 6-17).



Figure 6-17 Screenshot: the four options when using Sina Weibo's photo sharing tool

Similar to Twitter, the photo or the group of photos can be posted with or without text on Sina Weibo. However, unlike Twitter, Sina Weibo presets the default text that reads “分享图片,” or “photo sharing,” in the text editor. The user has the options to use the default text, delete it, or edit it. (Figure 6-18)

In the basic “adding photo(s)” option, a user can attach up to nine photos to a *weibo*, each of which has a small watermark on the bottom-right corner that consists a Sina logo and the user's *screen name*.



Figure 6-18 Screenshot: Sina Weibo's basic “adding photo(s)” tool



Figure 6-19 Screenshot: an example of a basic photo *weibo*, the collapse view (top) and the expand view (bottom)

Similar to Twitter, on Sina Weibo, a visitor can click on the “查看大图,” or the “view large image” icon, on the top of the image viewer in the expand view mode, and view the image in an overlay gallery (Figure 6-19). The overlay gallery on Sina Weibo also has arrows pointing to the left and right for browser the entire photo stream of the user. In addition to the featured photo, however, the Sina Weibo overlay gallery also presents a hover-over photo stream under the featured photo, with the featured photo highlighted and the rest of the photos grayed out. This feature shows the chronological position of the featured photos in the stream, and makes



the context of the photo visible to the user. In addition, like on Twitter, links are provided to *favorite*, *share*, or *comment* on the *weibo* and the images it contains. In the case of *favorite*, Sina Weibo offers users more than one option to access the tool and use it. A user can *favorite* an individual photo by clicking on the *favorite* icon  on the top right corner of the image, and to *favorite* the entire *weibo* that consists multiple photos including the featured photo by clicking the *favorite* icon  in the right column beneath the text of the *weibo* (Figure 6-20).



Figure 6-20 Screenshot: Sina Weibo’s overlay gallery (grayed out area original)

In addition to the basic photo sharing option, Sina Weibo, in collaboration with a third party developer, Meitu, provides users the collage option to present their photos. In the collage mode, the user can choose from three options, “photo strip,” “customized,” and “template.” The collage will appear as one image in a posted *weibo* (Figure 6-21).



Figure 6-21 Screenshot: Sina Weibo's photo sharing window

Each of these options provides the users tools to design a photo collage that consists of up to nine photos (Figure 6-22). For instance, in the “customized” mode, the user can choose a background for the photos, and adjust the positions and sizes of the photos and rotate each of them by dropping and dragging the photos with the cursor.

Screenshots sharing is also available with selected browsers including IE, Firefox 360, and Maxthon, although this option only supports Windows systems. Finally, the user has the option to upload photos to the app, “Photo album” app (photo.weibo.com), and share them on Sina Weibo seamlessly. When a user shares photos using the Photo app, they can choose to upload the photos to an album, existing or new, with or without a watermark of the user’s screen name. Sina Weibo does not limit the number of photos a user can upload to an album.

After uploading photos to Photo, the user has the options to write captions and tag the photos as they are saved in Photo (Figure 6-23).

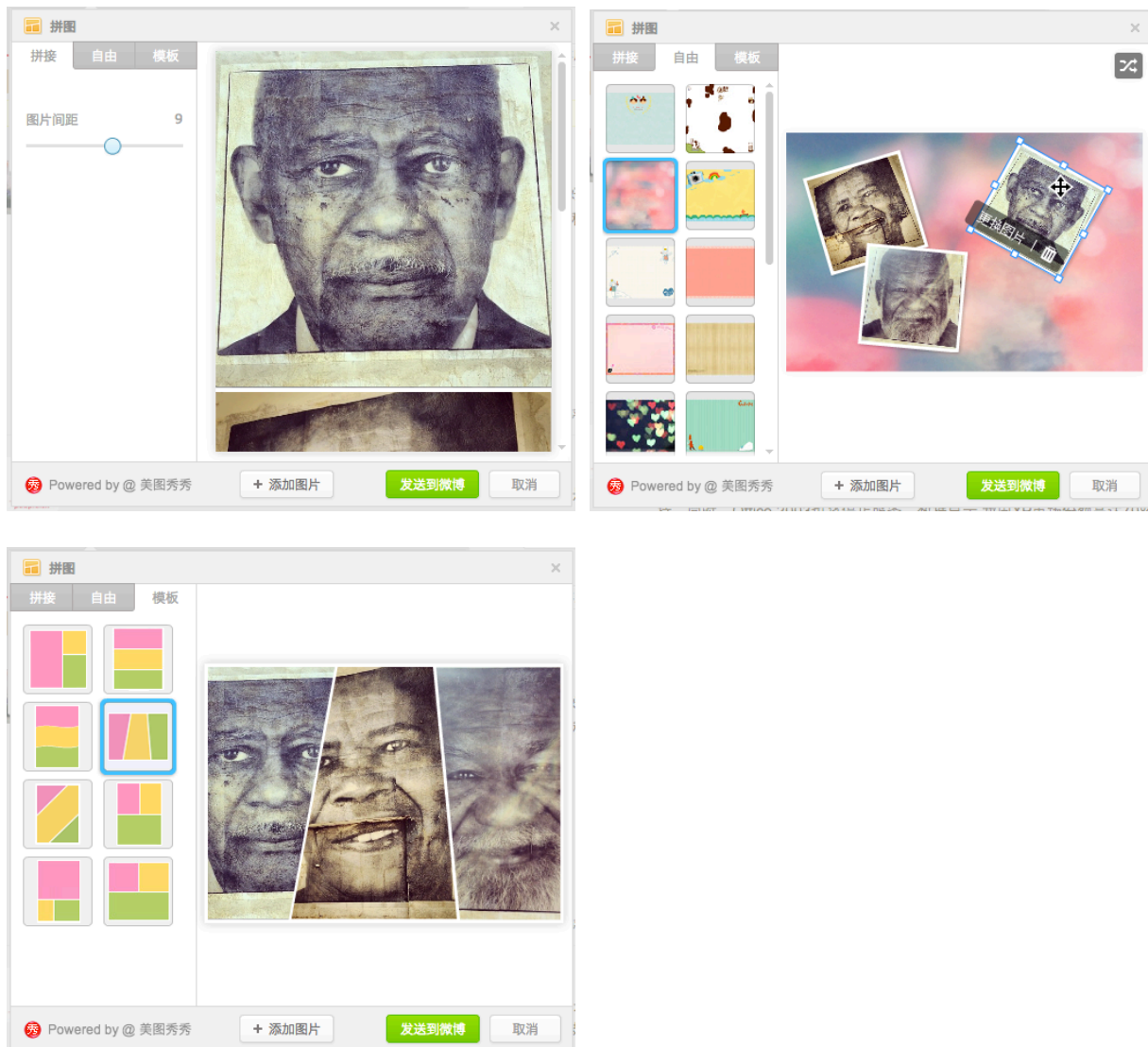


Figure 6-22 Screenshots: Sina Weibo’s three options for photo collage, “photo strip,” “customized,” and “template.”



Figure 6-23 Screenshot: caption editing and tagging in “Photo” on Sina Weibo



Figure 6-24 Screenshot: Sina Weibo’s “Photo” app upload tool.

Finally, each time when the user uploads one or a set of photos, they will also have the options to post a *weibo* that includes a link to the album. Figure 6-25 shows a *weibo* editor after a photo is successfully uploaded to Photo album. The default text in the textbox reads, “I have uploaded 1 photo to ‘Photo album.’” The user can use this default text, delete it, or edit it. The user can also choose not to post the announcement on Sina Weibo. This feature is designed to link the main platform of Sina Weibo to the Photo app, and promote the content on the Photo app. Such a design, compared to Twitter’s simple photo-sharing feature, is much more indirect and complex.



Figure 6-25 Screenshot: posting a *weibo* announcing that a new photo has been uploaded to the “Photo” app

6.1.4 Videos

Twitter does not have a built-in video sharing mechanism that affords independent device-to-web video sharing. Nevertheless, the system supports sharing videos hosted on other services outside of Twitter, such as Vine, a mobile application and video-sharing network created by Twitter Inc., Vimeo and YouTube, and websites that host video content. When the user shares a link to a video hosted on one of these services and websites, the system automatically embeds a video player in the expanded mode when a *tweet* contains a link to a video from sources. The videos shared in a *tweet* can be played within Twitter’s interface without the user leaving Twitter and navigating to other websites.

Figure 6-26 shows the default (collapsed) view of a *tweet* that contains a link to a YouTube video shown in a *timeline*. On click, the *tweet* expands to show an embedded YouTube video player and a brief description of the video, as shown in Figure 6-27. The system gives the

user the options to view the video directly on this page, and to view it in its original location on YouTube via the “View on web” link.

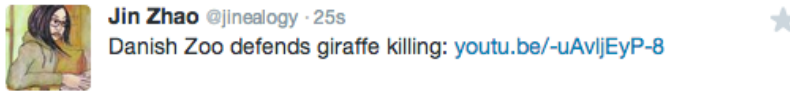


Figure 6-26 Screenshot: a *tweet* that contains a link to a video on YouTube

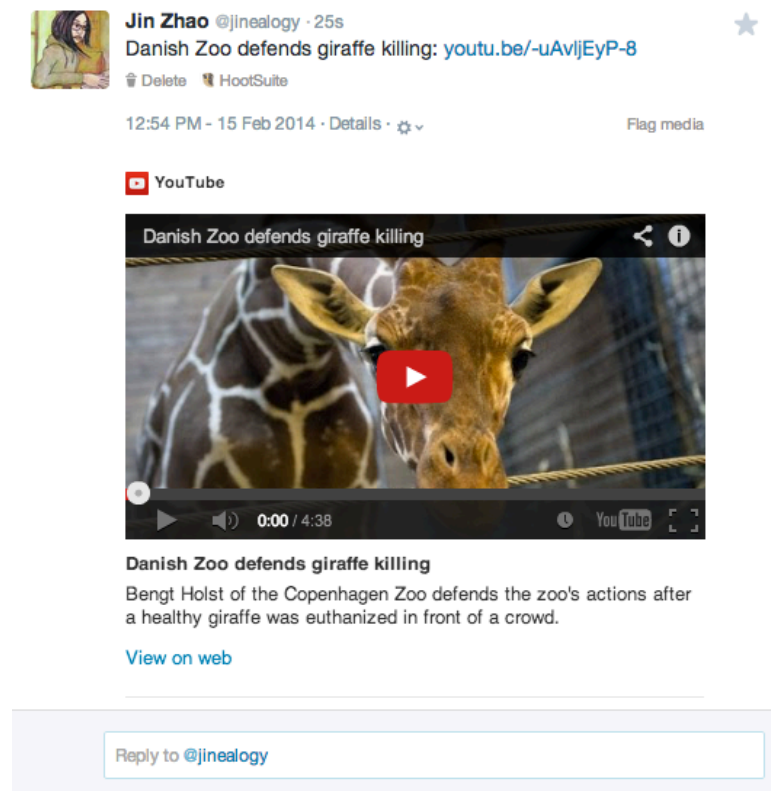


Figure 6-27 Screenshot: the expand view of a *tweet* that contains a video on YouTube

In addition, videos from a number of video sharing or hosting services such as Vine, YouTube, and Hulu also appear in the Photos and videos media gallery in the user’s profile section in addition to *timelines* (Figure 6-28).

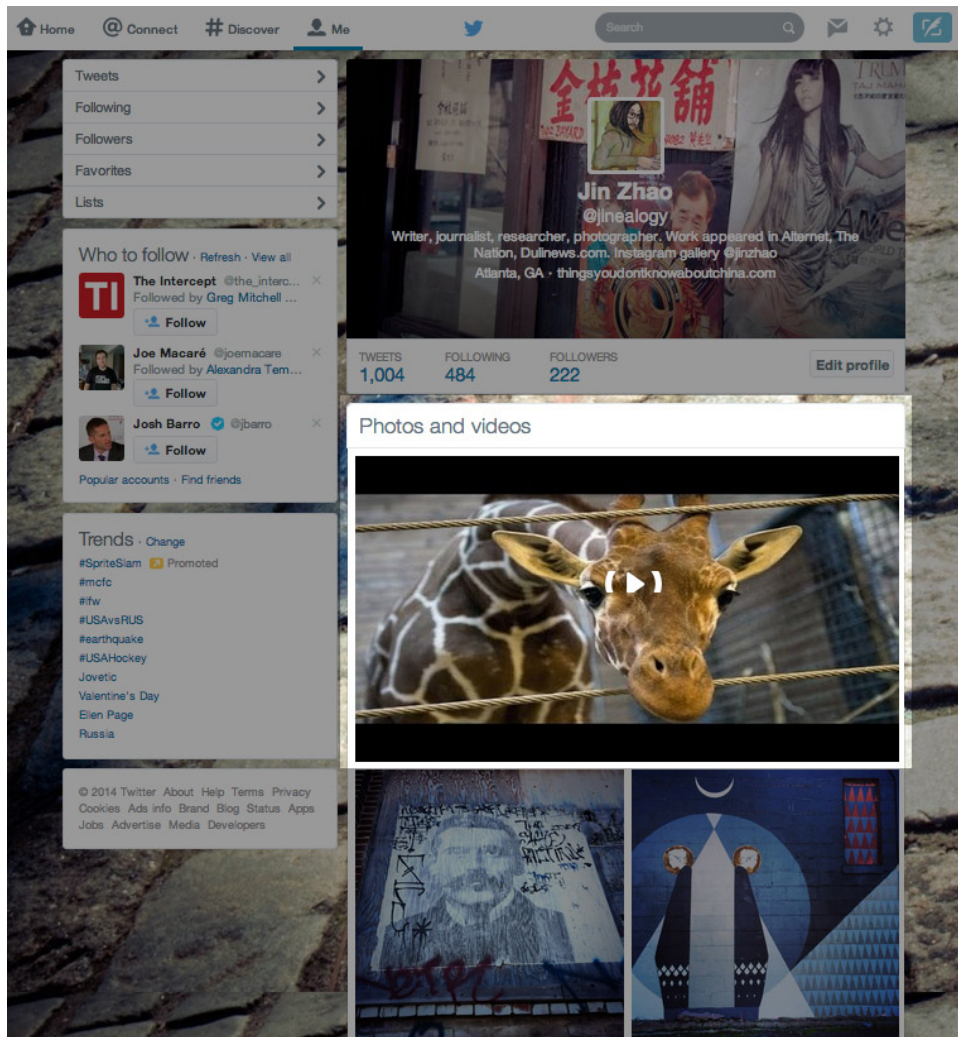


Figure 6-28 Screenshot: YouTube video displayed on the “Photos and videos” media gallery on Twitter (grayed out area mine)

Compared to Twitter, Sina Weibo’s video sharing mechanism is much more complicated with source-specific features. The user has four options for video sharing, “upload,” “live record,” “links,” and “TV sharing.”



Figure 6-29 Screenshot: Weibo's video sharing

The first option, "upload," allows users to upload a video file to video.sina.com.cn, a service of Sina.com, and share it on Sina Weibo. Bulk uploading and mobile uploading are also available (Figure 6-30).



Figure 6-30 Screenshot: the video uploading window on Sina Weibo

Once the video is uploaded to video.sina.com.cn, the system prompts the user to share it on Sina Weibo. Figure 6-31 and 6-32 show a *weibo* that contains a video hosted on video.sina.com.cn directly uploaded from Sina Weibo as it appears on a *timeline*. Figure 6-31




show the default (collapsed) view of the video *weibo*. The content area of the *weibo* contains a textual description, a clickable button next the text  **IMG_9171** that links to the video on video.sina.com, an automatically generated screenshot, and a content box that contains a screenshot with an superimposed video icon, more accompanying text, a *play* button, “,” and a *favorite* icon, “,” which reappears on the bottom right with the links for user interactions.



Figure 6-31 Screenshot: a *weibo* that contains a video uploaded via Sina Weibo



The user has the option to play the video without leaving Sina Weibo by clicking on the screenshot with a superimposed video icon, or the “play” button  in the content box. Figure 6-32 shows an expand view of the video *weibo*, where an embedded video player is positioned in the center of the *weibo*. The user can also view the video at its location on video.sina.com.cn by clicking the file link, “ **IMG_9171**,” above the content box and the embedded video player (Figure 6-32).



Figure 6-32 Screenshot: the video player in the *timeline* on Sina Weibo

Besides uploading and sharing existing video clips, Sina Weibo also provides an option for users to record videos directly from the video camera on the computer and share them. The user can complete recoding and sharing a video of five minutes in length or shorter within Sina Weibo using its built-in tools. Figure 6-33 shows the video recording window in Sina Weibo, which is connected to tv.sina.com.cn, an “app” or an online television service of associated with Sina Weibo.



Figure 6-33 Screenshot: the recording tool on Sina Weibo

Like in Twitter, Sina Weibo users can share videos hosted on external services. What differs from Twitter is that, while on Twitter, no features are designed specifically for sharing links to videos, i.e., the user uses the same tools and follows the same procedure sharing a link to a video as they share a link to any object, on Sina Weibo, the user is invited to use the feature specially for video sharing.

When the user chooses “sharing a link” in the video sharing menu, they will be asked to input the link in a specified text box in an overlay window (Figure 6-34). In the same window, the web video services supported by this feature, such as Sina Video, YouKu.com, and Tudou.com, are listed under the text box.



Figure 6-34 Screenshot: sharing a video link on Sina Weibo



Figure 6-35 Screenshot: an example of a *weibo* that contains a link to a video on YouKu.com

Finally, Sina Weibo users have the option of “TV sharing,” a feature specifically designed for sharing content from tv.sina.com.cn. Clicking on the “TV sharing” button (Figure 6-36), the user is presented in an overlay menu a list of the television channels available on tv.sina.com.cn. The user can browse the content of each of these channels within Sina Weibo and share the content.



Figure 6-36 Screenshot: Sina Weibo's "TV sharing" menu

The features for video sharing on Sina Weibo provide users far more options to share video than Twitter does. However, Twitter's simple design that relies solely on links has the ability to afford users the needs that most of these different tools can, with the exception of direct video recording. The biggest difference between these two websites in terms of video sharing features is that Sina Weibo, with all the built-in search features, is able to promote content from certain services. Twitter, on the other hand, stays neutral to the content from the web.

6.1.5 Other Content Features

Twitter does not have different built-in features for specified types of content besides photos. Sina Weibo, on the other hand, has an array of features specifically designed for certain types of content. Many of the types of content are associated with other services Sina.com,

Sina Weibo's parent company provides. I present below a few examples of the features for sharing specific types of content.

Topic

On Twitter, users use the text box for inputting *hashtags* to mark a topic. While the user types into the text box, a list of possible topics will pop up. The user can either type the entire *hashtag* or choose one from this list at any time in the process of typing (Figure 6-37).

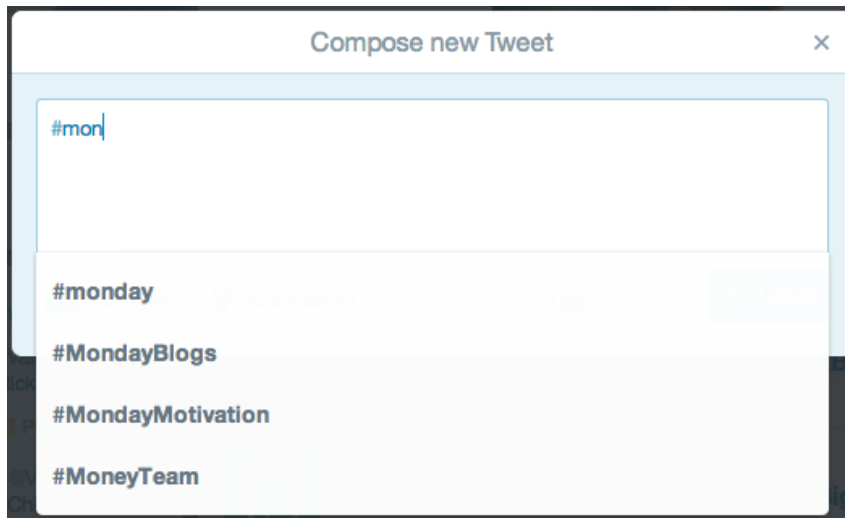


Figure 6-37 Screenshot: Twitter's *hashtag* suggestions in the text box

Sina Weibo has the same mechanism that affords users to use *hashtags* more easily (Figure 6-38). However, in addition to this simple yet efficient feature, a tool designed specific



Figure 6-38 Screenshot: Sina Weibo's *hashtag* suggestions in the text box



Figure 6-39 Screenshot: Sina Weibo's topic tool

for inserting *hashtags* is placed in the post editor (Figure 6-39). When the user clicks on the "topic" button in the post editor, a window appears with the options of inserting a topic, choosing one from a list of popular topic, or inserting a "delete-in-10-minute" ("10 分钟删") topic. A *weibo* that has the *hashtag* #10 分钟删# will be automatically deleted in ten minutes.

Long *weibo*

The long *weibo* tool is one of the features adopted from users' innovation. Some Chinese microblogging users find the 140-character limit too short to express what they intent to. To circumvent the character limit, they started to convert long passages of text into images

and post the images instead of the text. Figure 3-40 shows a *weibo* that shares an article, the entirety of which is converted as an image.

Converting text to images for sharing is also a way for Chinese microblogging users to circumvent censorship. All the major microblogging networks in China have self-censorship mechanisms that detect and block *weibos* that contain “sensitive” phrases. Images, however, are very difficult to censor. Other users also share content from websites that are blocked by the Chinese government by posting screenshots of webpages.

Sharing images of text is not a unique practice to Chinese microblogging users but quite common among SNS users, including Twitter users. However, images that contain such long text as the *weibo* shown in Figure # are very rare on Twitter and other U.S.-based SNSs. Instead, Twitter users often share images that contain stylized text and other visual elements, such as memes.



Figure 6-40 Screenshot: an example of a long *weibo* (entire *weibo* on left, detail on right).

Because of the popularity of posting images converted from long text on Chinese microblogging networks, third party websites, such as cwbjg.com and taichangle.com, emerged to provide web-based tools for creating long *weibo*. Later, Sina Weibo incorporated a long *weibo* tool as a built-in feature, directly accessible via the text box for composing a new *weibo*. The user can use an editor (Figure 6-41) to create and edit a long *weibo*. The elements that can be edited in this tool include an image, a title, and the main text body.

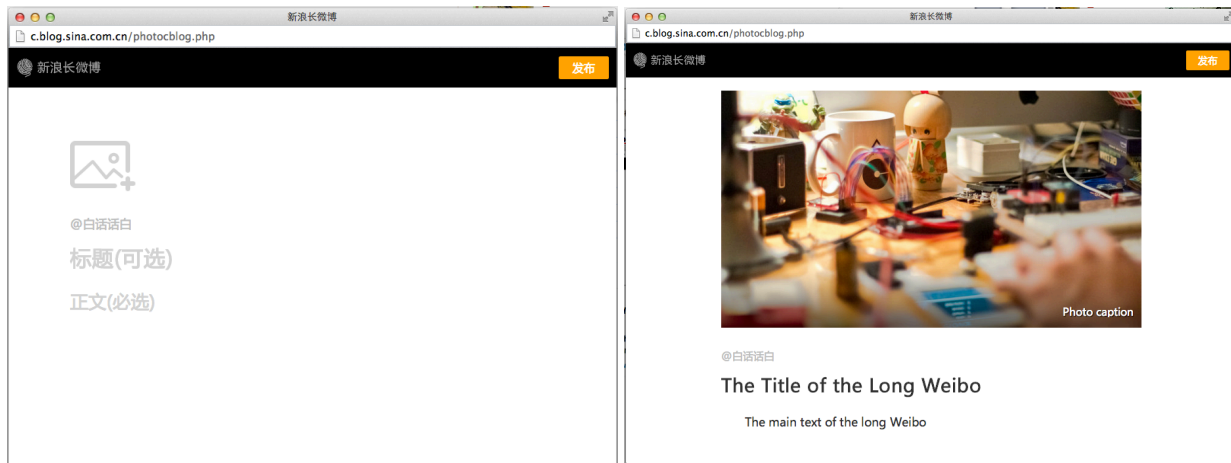


Figure 6-41 Screenshot: the pop-up editor for long *weibo*

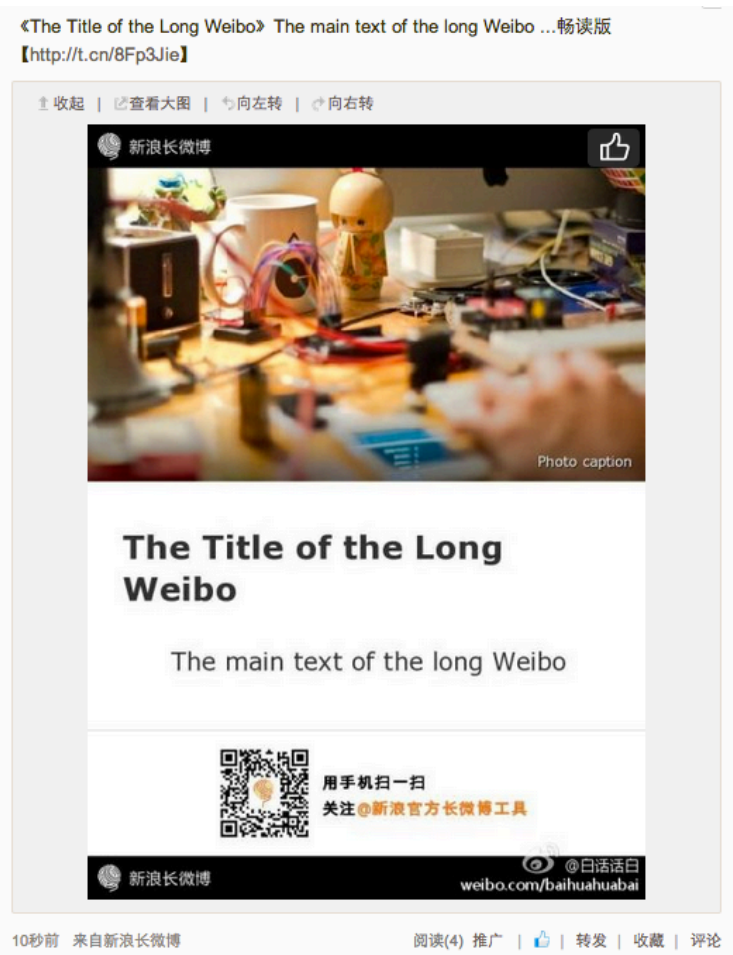


Figure 6-42 Screenshot: a long *weibo* appearing on a *timeline*

Once posted (Figure 6-42), the *weibo* that appears on the *timeline* will include the image converted from the content the user input in the editor as well as a link and a QR code linking to a webpage on which the content is posted simultaneously—a web version of the long *weibo* that resembles a blog entry.

Emoji

On Sina Weibo, the user has many built-in emoji options to add to their *weibos*. In addition to the emoji to be used in regular *weibos*, a feature called “How are you feeling today?” is designed specifically for users to post emoji that reflect their moods (Figure 6-43). Each emoji in the “How are you feeling today?” editor has a default text associated to it, which the user can edit, delete, or substitute with their own text. Besides emoticons, the “How are you feeling today?” editor also displays on the bottom customized weather information and astrology, available for the user to share.



Figure 6-43 Screenshot: Sina Weibo’s emoji (left) and the “How are you feeling today?” feature (right)

Music

Sina Weibo's music sharing feature connects Sina Weibo to the online music sharing website xiami.com, and allows the user to search and share music on xiami.com via Sina Weibo (Figure 6-44). Once posted, the *weibo* contains an audio player that allows users to play the music on Sina Weibo's web interface (Figure 6-45).

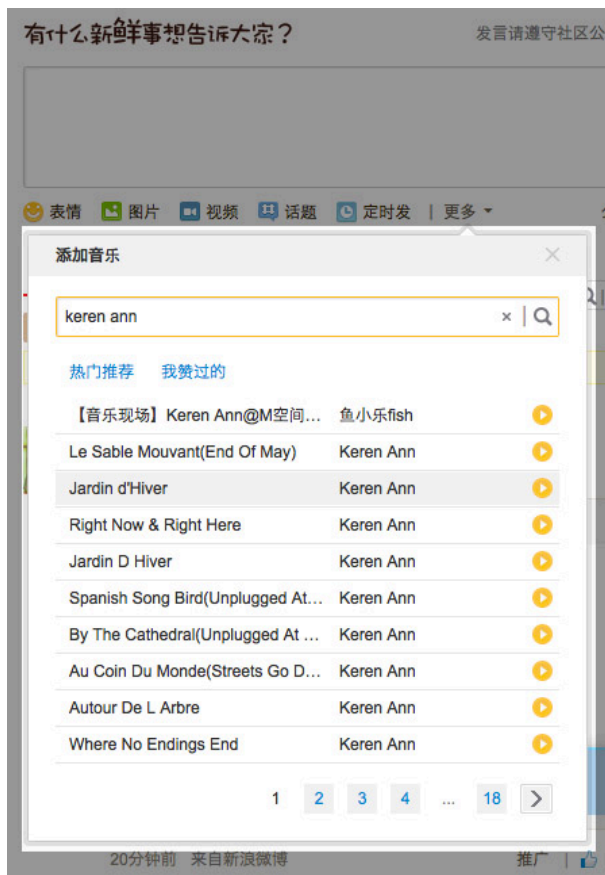


Figure 6-44 Screenshot: Sina Weibo's music sharing tool—one-stop searching and sharing



Figure 6-45 Screenshot: *weibo* that shares music

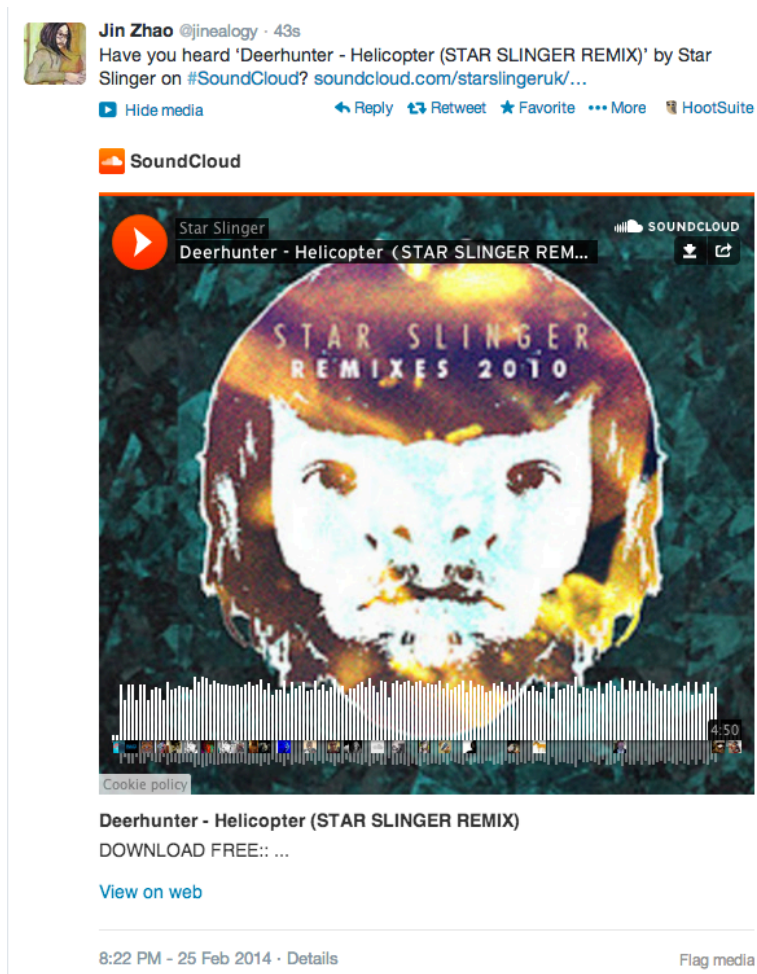


Figure 6-46 Screenshot: a *tweet* that shares a song from SoundCloud

Again, Twitter users can also share music by tweeting links to music hosted on music websites such as SoundCloud and Spotify. Depending on the music hosting/sharing service, a tweet may contain an audio player (Figure 6-46). However, Twitter does not provide built-in music search and sharing tools that allow the users to do everything within Twitter's interface.

Polls, causes, and file sharing

Sina Weibo also has built-in tools for creating and sharing polls, creating and supporting charitable causes, and saving and sharing files. These functions are supported by Sina Weibo's various services, or "apps," such as the "Wei Causes" app ("微公益" or "*weigongyi*") and the cloud file storage and sharing "Wei Drive" app ("微盘" or "*weipan*").

6.2 Moving content: *retweet/share, reply/comment, embedding, and live feed*

In addition to posting, Twitter and Sina Weibo both afford users to move content within the respective networks with features such as *retweet*, *share*, *reply*, and *comment*. In Twitter's case, the movement of content is not restricted to the network. Rather, the SNS also supports users to easily move the content across the web on other SNSs and web-based media.

6.2.1 Moving content within the networks

On Twitter, moving content within the network is afforded by two distinct features—the *retweet* feature and the *reply* feature. The *retweet* feature allows the user to move *tweets* with two clicks, with no modification, from any *timeline* in the network to their followers' *timelines* and their own profile *timeline*. The *reply* feature allows the user to respond to a *tweet* with a new *tweet* that contains the *username* of the user they are responding to following the "@" symbol.

Retweet is a built-in feature on Twitter for quick content sharing. Twitter users met their needs to *retweet*, i.e., directly quoting and sharing content from other users, first met with users' innovative use that consists of a series of actions: copying and pasting the original tweet, putting quotation marks around it, writing the letters "RT" that stands for "retweet" and the original tweeter's *username* following the "@" symbol before or after the quotation, and *tweeting*. In 2009, Twitter incorporated the *retweet* feature into the system to afford users' need to move content faster and more easily than the manual process described above.


The built-in *retweet* feature of Twitter has simplified the *retweet* process significantly, and no extra spaces must to be occupied by added letters and quotation marks, so the user can preserve the original *tweet* exactly as it is. Under each *tweet*, there is a "Retweet" button for users to share the *tweet* to their *followers* (Figure 6-47). On click, an overlay window is opened for the user, with the options of "Retweet" and "Cancel" (Figure 6-48). Once the user click on the "Retweet" button in the overlay window, the tweet is *retweeted* and will appear on the user's own and their followers' *timeline*, with a *retweet* symbol, ", the original user's AVI, name, and username, and a line that says "Retweeted by . . ." with the reteeter's full name (Figure 6-49).



Figure 6-47 Screenshot: the "Retweet" button under a *tweet* on Twitter



Figure 6-48 Screenshot: an overlay window with the option to *retweet* on Twitter



Figure 6-49 Screenshot: a *retweet* that appears on the on Twitter

The entire process of *retweet* contains two steps and requires two clicks of the mouse, which affords the user to share content easily and fast. The display of *retweeted* content is almost identical as the original *tweet*, except for the extra line indicating the user who has *retweeted* the *tweet*, so that the *followers* of this user can understand the reason this *tweet* appears on their *timeline* (since they do not necessarily *follow* the user who has originally *tweeted* this *tweet*).

Many Twitter users continue to use the manual methods to *retweet* and *tweet* a “modified *tweet*,” marked by letters “MT,” often when they wish to add their comments to the original *tweet*, or when they wish to have their own full name and AVI associated with the *retweet* on their *timelines* rather than the original tweeter’s. The SNS supports these activities by automatically attach the original tweeter’s *username* following the “@” symbol whenever a user copies and paste a *tweet*.

The *reply* feature is distinct from the *retweet* feature on Twitter. It allows users to respond to each other. A *reply* is always in the form of a *tweet*, i.e., when replying to another user, a user is posting a *tweet* like any others *tweets*. Figure 6-50 shows a *reply* displayed in a *timeline*. Except for the “View conversation” link, it appears like any other *tweet*. Clicking on the “View conversation” link, a user can view the entire conversation (Figure 6-51).

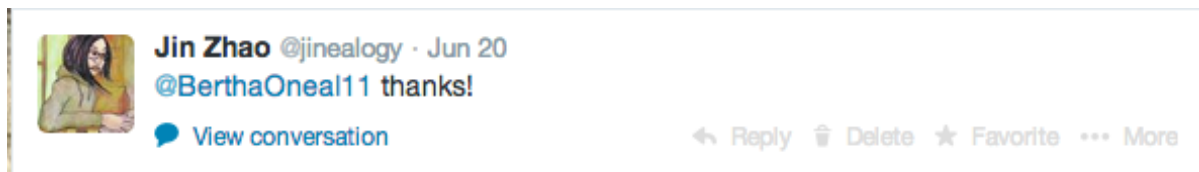


Figure 6-50 Screenshot: a reply displayed in a *timeline* on Twitter



Figure 6-51 Screenshot: a conversation appearing in a *timeline* on Twitter

When two users among the *following* of a user *reply* to each other, their *tweets* will be displayed together in chronological, rather than reverse chronological, order, and linked by a blue line (Figure 6-52). This fairly new feature, which was rolled out in 2013, allows users to keep track of a conversation among the users they *follow* (Kamdar, 2013).

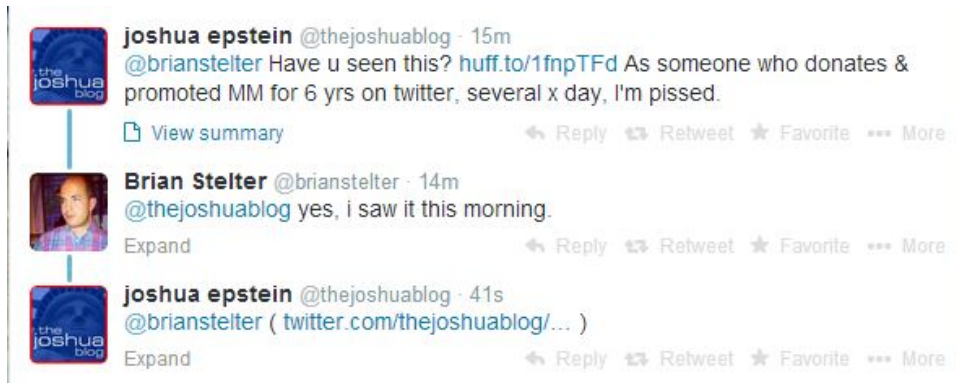


Figure 6-52 Screenshot: a conversation in a *timeline* between users followed by the same user viewed by the user

In addition, in the expended view of a *tweet* in a *timeline*, all the replies to this *tweet* are displayed beneath the original *tweet*, along with the stats of *retweets* and *favorites* (Figure 6-53).



Figure 6-53 Screenshot: the full view of a *tweet*

It needs to be noted that on Twitter, all the *replies* and *retweets* are in the form of *tweets* essentially, and appear on the user's profile *timeline* and their *followers'* Home *timelines*. No *reply* is invisible to other users other than the user the reply is intended for. The conversations, therefore, are all public.

On Sina Weibo, the *share* feature and the comment feature are the features that afford the movement of content. *Share* is similar to *retweet* on Twitter and *comment* is similar to *reply* on Twitter. However, unlike on Twitter, where *retweet* and *reply* are distinct features, the functions of these features and the user needs they afford have much overlapping. When a user *shares* a *weibo*, the user is at once given the option of to *comment* on the *weibo* simultaneously, and vice versa. Figure 6-54 and Figure 6-55 show the examples of a share (with comments) posted in a timeline and a comment posted as a *weibo* in a timeline. There is no distinction between the two presentations. Both of them contain a stream of comments in the main text area, which documents, reverse-chronologically, the trail of comments by users who have previously shared the *weibo*. Under the main text area, the original *weibo* is presented in an embedded box. Options of sharing and commenting are available for both the original *weibo* and the *share*. That means that a user can choose to *share* or *comment* on the original or the *share*.



Figure 6-54 Screenshot: a *share* with comments in a user's profile *timeline* on Sina Weibo



Figure 6-55 Screenshot: a *comment* posted as a *weibo* on a *timeline* on Sina Weibo

The processes of using the two features are almost identical as well. Take the share feature for example, under each *weibo*, a “Share” button can be used to *share* this *weibo* to a user’s *followers* (Figure 5-56).



Figure 6-56 Screenshot: the “Share” button under a *weibo* on Sina Weibo

When the user clicks on the “Share” button, an overlay window appears. Unlike the overlay window for retweet on Twitter, which displays the original tweet and the options to retweet or cancel, the overlay *share* window on Sina Weibo has many more features. Besides

the excerpt of the original *weibo*, it also includes a text box, in which the user can input comments included in the shared *weibo*, the option to simultaneously post a *comment* on the original *weibo*, other sharing users' *comments*, and sending options such as posting within the *close friends circle* or via the *DM* (Figure 6-57). Once *shared*, the *weibo* will appear on the *timelines* of the user's *followers* as well as the user's own profile *timeline* (Figure 6-54).



Figure 6-57 Screenshot: the overlay *share* window on Sina Weibo

The process of *comment* is almost identical to the process of *share*, with one difference. When a user *comments* on a *weibo*, they have the option to “also share on my *timeline*” or not. If the user chooses to also *share* the *comment*, the *comment* will appear on the user’s own profile *timeline* and their followers’ Home *timelines* like a shared *weibo* (Figure # reuse). In addition to being displayed in the *timelines*, the shared *comments* also appear in the expand view of the original *weibo* (Figure 6-58).

However, if the user chooses not to *share* their *comment* or the original *weibo*, they can also do so. In this case the *comment* only appears in the expanded view of the original *weibo*. It will not appear anyone’s *timeline*, which is different from on Twitter, on which every *reply* is always posted as a *tweet*. If each *weibo* is seen as a space, the non-share option for the *comment* feature allows users to assume different roles in this space, the user who has posted the *weibo* being the “host,” the users who *comment* on this *weibo* being the “guest.” The “host” of the original *weibo* is able to delete comments on this *weibo*, and a guest does not have to show their *comments* on their own *timeline* or their *followers’* feed. Sina Weibo users, therefore, are able to manage the communication presented to visitors to their *weibos* and profile *timeline*. Such editorial power is not afforded on Twitter, where no *tweet* can be deleted by users other than the tweeter, except in case of reported spamming or other malicious practice. In those cases, the SNS intervenes and the user account can be suspended.

Because *share* and *comment* are two features, but with overlapping functions—the user can *comment* on a *weibo* by using either one of the two features—two lists of *comments* are displayed beneath the original *weibo* in the *extend* view, each with unique content.



Figure 6-58 Screenshot: the *extend* view of a *weibo* with *comments* posted using the *share* feature

These features that afford moving content on the two SNSs share the same basic functions such as sharing and replying. Nevertheless, while Twitter's features are clearly defined with distinct functions, Sina Weibo's are much more complicated and not as clearly defined. In addition, the unique *comment* feature on Sina Weibo seems to respond to users'

anxiety of connecting their accounts to their speech in the network. While on Twitter, a page that shows a *tweet* is a way to organize publicly available and accessible content with a *tweet* at the center, the page for a weibo is more like a user's "territory," where the user has the privilege of editing the content.

6.2.2 *Moving content beyond the networks*

Besides features that afford users to move content within the network, Twitter also offers features that allow users to move content from Twitter and present it in a variety of media interfaces. On the other hand, while Sina Weibo reaches out to other media to bring content (and users) into the network, it is designed to keep the content and the users within the SNS.

Twitter supports users to share content following in the network to media interfaces beyond the network, such as website, blogs, SNSs, web-based applications, and traditional media such as television. For instance, the "Embed Tweet" and "Embed this profile" allow users to automatically generate the HTML code for a tweet or a profile, and embed the content on a webpage outside Twitter (Figure 6-59).



Figure 6-59 Screenshot: access to the "Embed Tweet" features on Twitter

These features make the process of embedding content in other web-based interfaces outside Twitter an easy task to accomplish without requiring users to command HTML coding expertise. Taking the “Embed Tweet” feature for example, with once click, the HTML code for embedding is automatically generated, and a preview of the embedded content is displayed (Figure 6-60). If the *tweet* contains media objects, i.e., a photo or a video player, the user also has the option to include the media. Once the HTML code is generated, the user can simply copy and paste it to the location where they wish to embed the content (Figure 6-61).

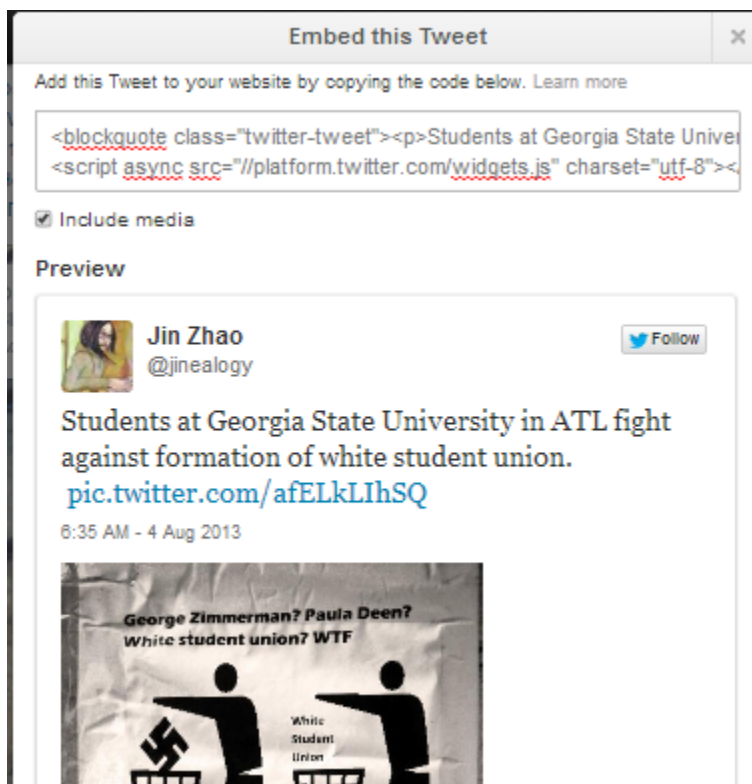


Figure 6-60 Screenshots: generating the HTML code of a *tweet* on Twitter

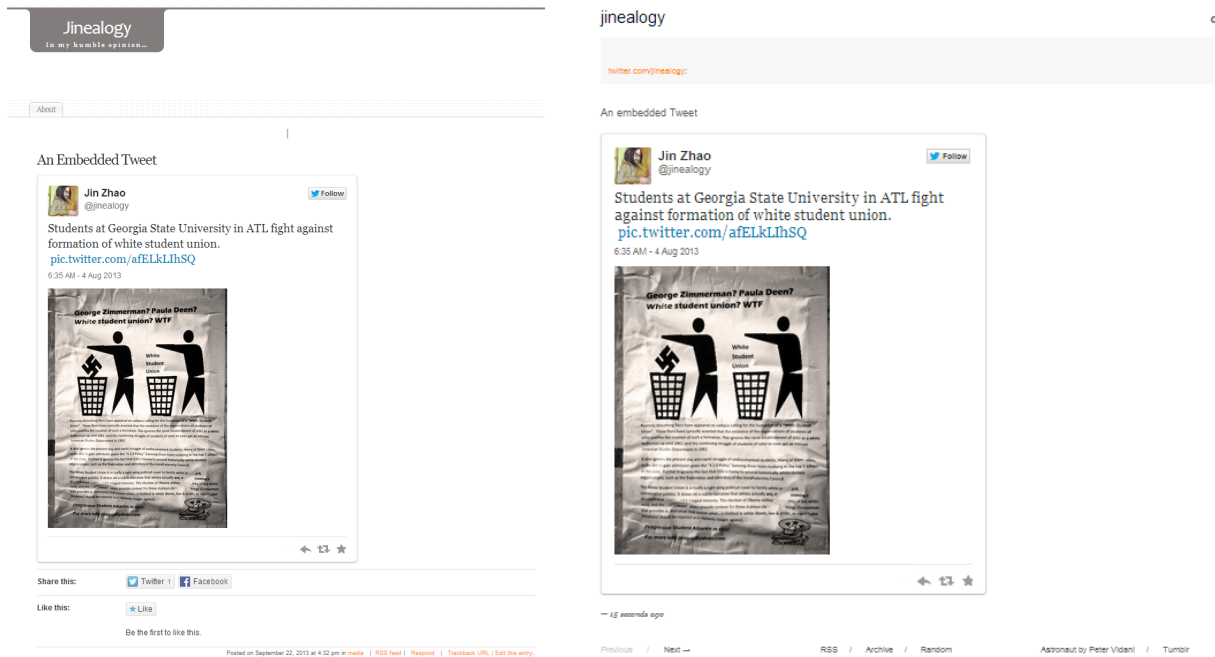


Figure 6-61 Screenshot: a *tweet* embedded in a Wordpress blog post (left) and a Tumblr post (right)

Besides embedding content, using Twitter's published streaming APIs, users and developers of other websites and Internet-based media are able to stream Twitter's public content on other media and web platforms. Twitter offers three streaming endpoints. The public streams APIs allow users to stream public data following through Twitter. This endpoint is widely incorporated in websites and traditional media such as television to stream certain users' content and content on certain topics. The user streams APIs allow users to stream public data corresponding to a single user's view of Twitter. This endpoint is used, for instance, in social media management applications and services such as Hootsuite. A third endpoint is the site streams, which provide a multi-user version of user streams for websites that connect to Twitter on behalf of their users. This endpoint is widely used, for instance, on UGC websites, such as Wordpress and Tumblr.



Figure 6-62 Screenshot: a Twitter stream on a Wordpress blog supported by site streams APIs

It is important to note that no matter the content on Twitter is embedded or streamed in an interface outside Twitter, the user of the external interface is able to view the full content without having to the navigate to Twitter. In other words, these features afford the presentation of the content from Twitter rather than indexing it, which means that Twitter's content is highly movable across media interfaces beyond Twitter.

Sina Weibo, on the other hand, does not offer such built-in features that allow users to move content from its network around the web or on other media. Users can manually embed the URL of a *weibo* in the content of an external webpage. However, the content of the *weibo* will not be displayed on the external webpage. Instead, a link to the *weibo* will be displayed, and a visitor has to navigate to Sina Weibo to view the content of the *weibo* (Figure 6-63). Depending on the accessibility of the *weibo*, as discussed in Chapter 4, the visitor may need to login Sina Weibo to view the content. In this sense, the mobility of content on Sina Weibo is much more restricted than that of Twitter.

jinealogy


[twitter.com/jinealogy:](https://twitter.com/jinealogy)

新浪微博-随时随地分享身边的新鲜
事儿 →

A embedded post from Sina Weibo

— 42 seconds ago

Figure 6-63 Screenshot: a *weibo* embedded in a Tumblr post

6.3 Summary

In the comparison between the design aspects that afford users' posting and moving content between Twitter and Sina Weibo, a number of different traits have emerged that characterize the two SNSs:

Table 6-1 Summary of findings

Simplicity and standardization	Complexity and specificity
<ul style="list-style-type: none"> - Standardized, one-size-fits-all posting features. - Users are offered a limited number of options for posting content. - Simple and mutually exclusive types of users' engagement with the content. - Absence of built-in tools for expression of emotions and attitudes 	<ul style="list-style-type: none"> - Posting features specific to content types. - Users are offered many more options and functions for posting content. - More types of users' engagement with the content are defined, some of which overlap in functionality. - Multiple built-in emoji tools for expressing emotions and attitudes

<p>Prioritizing content flow and mobility</p> <ul style="list-style-type: none"> - Utilizing links to content on the web external to the SNS, Twitter only save the text and images of <i>tweets</i> on its server. - The number of options and features users have to post and move content is limited, which allows them to focus on content itself, rather than the process, and create, consume, and move the content fast. - The moving of content both in and out of the network is well supported. 	<p>Prioritizing content and user retention</p> <ul style="list-style-type: none"> - Sina Weibo allows users to upload many types of content on the server. - The number of options and features users have to post and move content is much larger than Twitter's, which slows down the speed of the creating, consuming, and moving content, but can keep users on the SNS for longer time. - While the inward moving of content is well supported, the outward moving of content is restricted.
<p>Openness and transparency</p> <ul style="list-style-type: none"> - For public user accounts, all communication except for DM is out in the public, existing in the form of <i>tweets</i>. - Users are not able to delete <i>replies</i> other users post, although they can choose to not see them by blocking these users. 	<p>Control of information visibility</p> <ul style="list-style-type: none"> - Users can choose to hide some content they post, i.e., comments on others' <i>weibos</i>, from their own Profile timeline, separating their speech from their identities. - Users are able to delete comments from other users and/or prohibit them from commenting on their

	<i>weibos.</i>
Absence of content solicitation and default text <ul style="list-style-type: none"> - System does not solicit content from users. 	Active content solicitation and use of default text <ul style="list-style-type: none"> - System frequently solicits content via prompts and default texts in various tools, often with suggestions of topics and themes.
Neutral to content sources <ul style="list-style-type: none"> - No built-in search engine for content outside Twitter; all external content is posted with links. 	Promote some content sources <ul style="list-style-type: none"> - Built-in search engines for content outside Sina Weibo; promote some content sources by embedding them in the posting tools.

7 CONCLUSION AND DISCUSSION: THE SHAPES OF CULTURES

The comparison of the UI design of the network, content organization, and the features that support users to publish and move content between Twitter and Weibo indicates different tendencies in the UI design of the two SNSs. Many of these tendencies run across the different aspects of the designs, and other are unique to a certain aspect. These biases in the pattern of the UI design show that the two SNSs, while both known as “microblogging” sites in their respective cultures, assume different identities in the cultures where they are designed and designed for.

In this chapter, I first summarize the patterns of UI designs of the two SNSs across the three aspects I have examined. Next, I discuss the implications of these patterns and their implications of culture’s impact on the identities of technological objects as they are transferred and localized in another culture other than the one where they were originally designed and development. I also discuss the insight we can learn from the results of this study to the practice of cultural usability research and localization practice. I then discuss the connections between certain aspects in the cultures of the United States and China and the design biases of the two SNSs. Finally, I discuss the limitations of this study and the future research.

7.1 Design patterns of Twitter and Sina Weibo

In the comparison of the UI designs of Twitter and Sina Weibo in the previous chapters, some design patterns of the respective SNSs have emerged. These design patterns suggests the

two SNSs's biases pertaining to the modes of communication they support and the affordances prioritize. These patterns are discussed below.

7.1.1 *Designing for communication*

Twitter and Sina Weibo are both multi-functional media that support various forms of communication that have been traditionally supported by different media and communication technologies. However, the design patterns that emerged in this study indicate that the two websites have their own biases towards the types of communication they support and prioritize. These biases suggest a subtle yet significant shift in the identity of the microblogging site, which has emerged in the United States as it is localized in China.

Twitter has a strong bias towards supporting mass communication, especially broadcasting—if broadcasting is understood as “a form of [information] dissemination that connects dispersed people via a common text at a more or less common time” (Peters, 2010, p. 272)—while at the same time providing supplementary options of other forms of communication among users. In other words, broadcasting is the type of communication among users that Twitter prioritizes with its design, although it is not the only type of communication the platform supports.

Sina Weibo, on the other hand, while preserving many of Twitter's design elements that afford broadcasting, has revised such design to support communication other than broadcasting, namely that which resembles face-to-face interpersonal communication. In other words, Sina Weibo's design presents traits that characterize broadcasting to a lesser extent compared to Twitter, and has moved towards a design that affords communication that is less public, less open, but more relational and communal.

In this section, I revisit the themes that have emerged in my analysis in previous chapters with regard to the social functions embedded in the design of Twitter and Sina Weibo, and summarize some of the most distinct biases towards the nature of communication supported by the designs of the two platforms.

7.1.1.1 Open vs. controlled access and information out-flow

With their connection to the Internet, SNSs like Twitter and Sina Weibo have the potential to connect to an audience beyond any form of the conventional mass media. However, as their designs show, the two websites, as media platforms, take different approaches to this potential to reach a size of audience towards infinity. While Twitter's approach is to maximize this potential of the Internet, Sina Weibo tends to create, rather than minimize barriers so as to control the access to the content in its network.

Twitter pushes to maximize the size of the audience who can receive the content flowing through the media platform. Its design of the user network and the features that support content movement aim to make Twitter a media platform with which users are able to reach the widest audience possible with their content, and access the largest amount of content possible as audience members. By eliminating barriers such as user login, the network makes public content completely open to any Internet user, provided that the access to the network is not otherwise restricted by external parties such as governments. At the same time, the design of the website encourages its registered users to make their content public by providing incentives for them to do so, so as to maximize the amount of content open to the public. The features that afford users to move content beyond the network of Twitter further

broaden the potential audience for each broadcasting user in the network. With these design features, Twitter pushes the size of audience to “infinity,” or as large as the Internet allows.

Compared to Twitter, Sina Weibo seems to be biased towards restricted accessibility of its content. In other words, users who post content via Sina Weibo are not able to reach as broad an audience as the Internet itself offers potentially. The website uses features such as user login to restrict full access to the network to registered users only. At the same time, the website grants its users with certain statuses, such as VIP users, the privilege of reaching a wider audience by making more of their content accessible without login. Finally, unlike Twitter, Sina Weibo does not offer users features that afford users the ability to easily move the content shared on the platform outside to external locations on the web. These features—or the lack of—are designed to build barriers for users on Sina Weibo to reach the widest audience that the Internet allows.

These differences in dealing with accessibility of the content on Twitter and Sina Weibo can be illustrated using an analogy of mass media. With regard to accessibility, Twitter resembles the classic broadcast media, whereas Sina Weibo resembles cable television, or in a sense, subscription-based newspapers and magazines. In the former case, the accessibility to content is available to anyone who have overcome technological constraints—for instance, those who are equipped with receivers, and in the latter case, the accessibility to content is restricted to an audience who has gained a certain exclusive membership.

Furthermore, Twitter’s design prioritizes information flow across the media platforms on the web, while Sina Weibo prioritizes controlling information flow on various levels. This is seen in features that afford both publishing and moving content. Twitter’s minimalist design of

publishing features relies heavily on links, which shapes the network into a medium through which information follows between external web locations and Twitter users. Sina Weibo, on the other hand, tends to host media objects on its own server, or other services provided by the parent website Sina.com. In other words, Sina Weibo is compelled to take hold on the content, rather than serve as a medium to facilitate content flow.

On the other end of information flow, Twitter supports the flow of content from the network to media interfaces outside the website. Sina Weibo, on the other hand, is closed on this end. The website does not provide channels for users to move content outwards from the network to other media interface. On the contrary, the website seems to attempt to trap the content within the network once it has flown into it. Such control suggests an opposite impulse to Twitter's effort to make content flow fast and openly.

7.1.1.2 Indefinite vs. specified audience

One of the characteristics of communication via mass media is that, rather than directed to a specified audience as, for instance, in the case of face-to-face talk, a message is sent to an indefinite mass audience whose members have no personal relationship with the media. In other words, the media have little control over who will receive the content. Rather, the locus of the control of content reception is located in the audience. Such is the default mode of communication on microblogging sites as well. Users publish or broadcast content to the public in the network, or in Twitter's case, on the Internet, and the users who have access to the content decide what content to receive. The *follow* feature, a core feature on Twitter and Sina Weibo, which affords users to establish one-directional connection with other users so that they can receive their content, is designed in correspondence to this mode of communication.

The *follow* feature is the only feature on Twitter that affords users the ability to establish continuous connections with other users. The feature allows users as audience members to connect to broadcasters and manage the content they receive. However, the website does not afford users as broadcasters the ability to control the contexts of reception when they broadcast content on the platform. Additionally, all content published or broadcast on Twitter is in the form of *tweets* whose accessibility is always consistent within the context of a user account, i.e., all the content broadcast by the same user reaches the same audience. Consequently, when a user broadcasts on Twitter, their content is received by an indefinite audience, which includes not just their *followers*, but also, potentially, any Internet user who can access the network. Even in the case of the protected *tweets*, where the *tweeter* is afforded the ability to define an audience who can receive their content, the *tweeter* is not able to slice the approved audience further and tailor content for them. In this case, the audience is more defined than in the case of public tweets, yet this option for users to define audience is still quite limited. Even so, as I have observed in Chapter Four, Twitter's design provides less incentive for users to protect their *tweets* than to make their *tweets* public, and designates public *tweets* as the default setting.

The design of Sina Weibo, however, does not have such purity that Twitter's design has with regard to the indefinite audience. Although Sina Weibo has preserved most of the broadcast mechanism of Twitter, it has added to its design the options for users to define audiences when they publish content in the network. Sina Weibo affords its users the ability to slice their audience and tailor the content for each audience segment with features such as *groups* and the Close Friends Circle. Some content on Sina Weibo, such as *comments*, do not

necessarily appear as *weibos* on the commenter's *timeline*. In such case, the accessibility of the content on Sina Weibo is not always consistent, i.e., different content can potentially reach different audiences. Users thus can present themselves in very different ways to different circles of contacts, very much like how people interact with social circles in real life. These additional options that Sina Weibo provides its users have transformed the communication carried out on the media platform from broadcasting to a kind of communication where content reception is more controlled and discriminative with regard to different audiences.

On another note, these differences between the two platforms in content reception control also shows the different positions of the two platforms in terms of the power of control in various aspects in the communication process. Twitter guarantees users the control of content they receive by making sure that all the public content is truly publicly available to everyone, while Sina Weibo in a sense curtails this freedom to access information by allowing the broadcasters to restrict accessibility of their content. The content on Sina Weibo, in this sense, is never completely public.

7.1.1.3 Information vs. relationship

The design approaches towards control of content reception on the two platforms correspond with their bias towards information and relationship respectively. Twitter, on which users broadcast to an indefinite audience, centers its design on content, as opposed to users' identities. In other words, content is the focal point for the design of the entire website. For instance, content is the medium for user engagement. Twitter's design supports users to engage with each other via content, i.e., the connections between users are established through publishing, receiving, and sharing content in the network. The only way to establish a

continuous connection among users on Twitter is the one-directional *follow* feature, although Twitter users can also have spontaneous interactions without establishing a *follow* relationship. These interactions, no matter via the follow feature or spontaneous, however, are all carried out necessarily through activities dealing with content. Twitter does allow users to send direct messages to each other, but such action is only available to users who have already established a *follow* relationship. That means that no private communication can take place without a relationship established based on the engagement with the public or semi-public content. Finally, search engines on Twitter also focus on content, offering users sophisticated tools to search content based on keywords. These design features indicate that Twitter's underlying assumption is that the value of the platform lies in content. In other words, users are drawn to the platform because of content—to broadcast or consume content.

This focus on content on Twitter is coupled with the downplaying of the importance of users' personal information that linked to the users' identities in the communication carried on in the network. For instance, little of users' personal information is used as data in search or content organization. In addition, structurally, all Twitter users are equal and even user verification, a feature that verifies users' identities, is initiated on the basis of a user account's status gained through other users' engagement with its content, rather than solely on the user's true identity. This equalitarian approach to user network, in principle, values the content users generate and share in the network while discounting their identities.

Sina Weibo's design tends to move its focus from content to the identity of users and relationship based on such identities. The website affords users' need to connect by identities and personal or pseudo-personal relationship in addition to via the exchange of content. The

system allows users to maintain connections without engagement with the content, i.e., while the users maintain the *follow* relationship, they can choose not to receive content from the users they *follow*, breaking the content delivery. Besides the one-directional *follow* feature that establish impersonal connections, Sina Weibo allows users to solicit bi-directional connections and encourages other relationships that are more personal by creating relationship categories such as the *Close friends circle*. Such options to establish or maintain relationships are not available on Twitter. What is available on Twitter, such as the sophisticated keywords search, however, is not available on Sina Weibo.

Sina Weibo's designs of user accounts and profiles also show that the website gives much importance to users' identities. In other words, it is not only important what a user publishes or broadcasts, but how they present themselves in their profiles. The design allows users to provide much more categorized personal information, which can be used as data in search and content organization. Such a design of a search engine prioritizes identity-based search rather than content-based search, compared to Twitter. In addition, Sina Weibo provides users different memberships, i.e., account types, based on the nature of the entities that the user accounts represent, and multi-level user statuses, often based on the system's recognition rather than other users'. These categories serve as markers of users' identities, which come with different degrees of privileges. In the case of user verification, unlike on Twitter, user verification on Sina Weibo is not initiated on the basis of a user's status gained in the network through other users' engagement with the user's content. Rather, users request verification and provide official documents of proof. In a sense, user verification on Sina Weibo

has nothing to do with users' content and the statuses gained in the network organically through other users' engagement with this content.

Another aspect that reflects the value the two platforms assign to content and identity is how they handle censorship. Twitter's design suggests that a principle of the website is to ensure each user has the right to broadcast with minimum interference of censorship. This principle that ensures the freedom of speech for users on the platform, however, is complicated by the interactive nature of the media. Since users are allowed to *mention* other users in their *tweets*, a conflict arises between the freedom of speech on the part of the broadcaster and the right to one's personal integrity and public image on the part of the subject of the mentioning. In this case, Twitter's design sides with users' freedom of speech, i.e., freedom to broadcast content, in that no user can block another user from *tweeting*, even if the *tweet mentions* or *replies* to this user. In other words, no user can directly monitor what is said about them published on the platform. In cases of reported spamming or inappropriate content, the website will act as the authority to intervene.

The design of Sina Weibo, on the other hand, seems to prioritize the protection to one's personal integrity and public image compared to Twitter, even though it means restriction to other users' freedom of speech in the network. Although the platform does not allow users to block other users from *mentioning* them, it does allow users to *block* another user from commenting on their *weibos* or to delete undesirable *comments* on their *weibos*. Such a feature, indeed, is designed to afford users the ability to protect their public image and, potentially, relationships with other users.

The priorities the two websites give to content and identity respectively indicate their biases as media. At the center of the communication supported by Twitter's design is content, which is both the goal and the means of communication in the network. The design downplays the ability for users to establish and maintain personal relationship based on users' identities. Rather, it is biased towards impersonal, content-based mass communication. The design of Sina Weibo, compared to Twitter, suggests a tendency biased towards communication based on identity-based and personal relationship.

7.1.1.4 Speed vs. context

Fast content delivery is an important feature of both Twitter and Sina Weibo. The real-time updates of *timelines* on the two SNSs deliver content to users as it is being published. In a sense, the delivery systems of these microblogging sites converge the delivery systems of the print media with that of the classical broadcast media, the former spread the audience over time but unite it in a single space (i.e., on a single page), and the latter unite the audience at one single moment and spread it over a wide space (Peters, 2010). Compared to webpage-based websites, whose delivery system shares much commonality with that of the print media where simultaneous delivery and reception are not required, such a real-time delivery system, while preserving the temporal separation of delivery and reception in print media, has sped up delivery exponentially and thus moved the two SNSs further towards broadcast media. In a fashion that very much resembles live broadcast on television and radio, real-time content feeds push the speed of content delivery close to zero, while its permanent display of content on the web provides the audience the flexibility with regard to the time of reception. This convergence exemplifies what Peters (2010) calls the "diversity in time and space" of the mass

delivery of contemporary media, as it unites and scatters the audience in time and space in ways unprecedented in print and traditional broadcast media.

However, besides the “mass” delivery of content, the “social” aspect of communication that these microblogging sites afford is equally if not more important in shaping their identities. In a “word of mouth” fashion, the flow of information on Twitter and Sina Weibo depends greatly on users’ activities, i.e., their engagement with the content. The speed of information flow on and beyond these platforms, therefore, is contingent on the speed of a number of user activities—the speed of finding content, browsing content, and moving content. The design aspects that affect these activities suggest different priorities of the two platforms.

Twitter’s design, from its IA, the presentation of information, to the tools that afford the movement of content, prioritizes the speed of information flow on and via the platform. Its stream-based bottom-up content organization, embedded in a shallow and narrow hierarchical structure, the simple navigation system, and its keywords-based easy-to-use search engines allow users to find relevant content quickly without complex navigating. Such user-centered IA also relieves users from the burden of understanding the logic of the designers in classifying the topics of content or content sources, and thus speeds up the process of finding content. In addition, Twitter’s small chunking of information, the efficient use of screen space, and text-heavy content minimize the screen space taken by each unit of information, e.g., a *tweet* or a user *profile*. Such design maximizes the number of the units of information that a user can browse and engage within the spatial and temporal constraints. Finally, the tools that afford users to engage with the content both within the Twitter network and across the web are simple and easy to use, which simplifies the mental and physical processes for users. At the

same time, these tools are easily accessible, always displayed with the content. Such accessibility encourages users to take action to engage with the content while browsing. All these design features are devised with the goal to make seamless the flow of information within the network and across the web and speed up the process.

Such priority given to the speed of information flow in Twitter's design is less salient in the design of Sina Weibo, although it shares the similar basic features that afford users to move content within the network that Twitter has. This tendency is reflected in its IA, its information design, and the design of the tools that afford the moving of content, where barriers that obstruct content flow present themselves frequently.

Compared to Twitter's flat, stream-based content organization, Sina Weibo's content organization favors the top-down deep hierarchical organization of content topics and users accounts classified into very specific categories according to areas of interests. The deep and complex hierarchical content organization on is not a design optimized for fast information flow, for it requires users to understand the logic of the classification in order to find the content they look for and thus slow down the process of finding information. In addition, the numerous multi-level categories also create barriers for users to browse or find content quickly, as users are required to navigate through layers of categories to reach the content, and the process of finding content can be slowed down further when users make errors in navigating and have to switch between categories.

The presentation of information units, i.e., *weibos* and user *profiles*, on Sina Weibo is not optimized for high mobility of content, either. The information units on Sina Weibo, be it *weibos* or user *profiles*, are much bulkier than those on Twitter, often containing much

contextual information. The screen space a weibo or a user profile occupies is often further enlarged with large white space between elements. The bulkier each unit of information is, the more it can interrupt or delay the speed of browsing, since fewer units of information are presented on the screen and users have to scroll down more often to view more content.

Finally, the design of the tools that afford users to move content is more complex than those on Twitter. The functions of some of the tools are quite similar or overlap. The complexity of the design, again, demands users to mentally and physically engage in the interface, distracting them from focusing on the content. In addition, more options and choices are available in each tool in this category, which increases the effort from the users to use the tool and simply takes more time when users use them. All these design traits of the tools for content engagement on Sina Weibo can slow down the process. Finally, Sina Weibo does not provide built-in tools for users to move content beyond the network around the web. Such restriction, an accessibility issue at heart, also can slow down the information flow through the platform.

To summarize, the speed of information flow is an important priority in Twitter's design, yet such priority is not as salient in Sina Weibo's design. The design elements on Sina Weibo that create barriers to fast information flow suggest that Sina Weibo have other competing priorities than the speed of information flow. This leads us to the next conclusion, which is that Sina Weibo's priority to communicate information in a systematic, context-heavy, and "complete" fashion, even at the expense of fast information flow suggests a deeply different understanding of content and context from the one that underlies Twitter's design.

The design of Sina Weibo suggests that context is regarded as essential information in communicating the content on the platform. Sina Weibo's broad and deep hierarchies suggest a desire to organize content systematically into exhaustive or near-exhaustive categories. In these hierarchies, each topic and each user is presented in a rigidly structured system in relation to other topics and users, a context that is explicitly expressed. This tendency is also seen in Sina Weibo's design of each unit of information, where much contextual information is included in each individual information unit. In this case, contextual information, because it is included within each information unit, is considered essential to this information unit, along with the core piece of information, i.e., the main text of a *weibo* or the bio of a user. The priority given to systematic presentation of content and the inclusion of contextual information when presenting information units is taken seriously on Sina Weibo even though it means that such practices are barriers to fast information flow.

Twitter, on the other hand, exhibits a very different approach to context. It does not construct a system from top down to put each information unit into a context, and it does not include contextual information within each information unit either. Each information unit is seen as an individual piece of information, which does not require context included as an intrinsic element to an information unit. However, these information units are building blocks to construct a context that is dynamic and reflective of users' activities. Twitter has been trying to improve its design so that it can better support users to construct context via their activities. One of the examples is the blue line introduced in 2013, which links tweets in a conversation with a line in the *timeline*. Rather than including the context in the information unit itself as

Sina Weibo does, Twitter achieves its goal of providing contexts for *tweets* by visually grouping and/or associating content.

These differences between Twitter and Sina Weibo suggest two very different understanding of the relationships between content and context. What Sina Weibo's design shows is an understanding where context is of intrinsic importance to content, and thus needs to be expressed explicitly in an environment—the mediated environment of a website—where implicit cues available in real life are impossible. Such an understanding underlies Sina Weibo's design that positions content in larger contexts and that maximizes the amount of information included in each individual information unit at the expense of the number of information units that get moved within an amount of time. The design of Twitter, on the other hand, suggests an understanding where context is not intrinsic to but outside of content. In other words, context is constructive but not essential to content itself. Such an understanding underlies Twitter's lean information units that contain the core content only, and its priority in moving these information units quickly in a stream of content.

7.1.1.5 Individual vs. community

The designs of Twitter and Sina Weibo also reflect their biases towards, respectively, individual-oriented communication and communal communication. Twitter's design centers on individual users. Content is highly customized for individual users based on individual users' interests, preferences, and activities. Although trending topics reflect the activities of the community, either the entire Twitter network or a more specified location based community, the number of them are very small compared to those on Sina Weibo. No space is designated to trending topics except for the short list that occupies a small content box in the left sidebar. In

addition, communities are loosely formed around individuals as well, through users' interaction with each other in the network. These communities are "formless" in that no space is designated to them on the website, and are formed purely based on users' engagement with each other. In this sense, positioning each individual user at the center of a community created for them and around them, the design brings communities to the user.

On Sina Weibo, content is customized of individual users as well. However, besides customized content for individual users, content is also organized to reflect the preferences and activities of the entire community. The organization of content in these designated space, i.e., apps of large scope, such as Hot or Topic Chart, does not take into consideration any individual user's interests or activities. Rather, they are simply aggregated presentation of the activities of the entire Sina Weibo community. In addition, the platform also provides designated apps for users who share interests to post content and interact with each other in a fashion similar to traditional online communities. All these apps are places where communities are, and users have to insert themselves into these communities' spaces to participate in them. Users as individuals are no longer at the center of the information flow. Rather, they are seen as members of communities, and the content they are exposed to is more dependent on the preference of these communities collectively than on Twitter.

The design of search engines on the two websites also reflects their priorities. On Twitter, the search engine automatically provides prompts for search terms based on the input of the user. The search engine, therefore, is design to meet individual users' search needs. On Sina Weibo, on the other hand, although the search engine also provides prompts for search terms, the prompts are not based on the user's input, but what is trending in the entire Sina

Weibo network. The search engine, in this case, disregards individual users' search needs. Rather, it promotes what is interesting, collectively, to users in the entire network.

7.1.2 *Designing for the web*

As SNSs, Twitter and Sina Weibo are designed for web users. Twitter's design complies with usability standards better than the design of Sina Weibo. At the same time, Twitter's design is more compatible with Web 2.0 design patterns than the design of Sina Weibo.

7.1.2.1 Flat vs. hierarchical structure

Twitter's design tends to favor flat and linear structures, whereas Sina Weibo is biased towards hierarchical structures. For instance, Twitter's user network is constructed in a flat structure, where all users are structurally equal, although of course the network itself is a hierarchy in the sense that users have various degree of influence depending on other users' engagement with them.

On Sina Weibo, however, the hierarchy of users is constructed structurally, i.e., users are positioned different places in the hierarchy by having a certain type of user account or a certain account status. Rather than constructed through users' interactions, as it is on Twitter, this hierarchy is constructed structurally in the system of the website.

The content organization on Twitter and Sina Weibo also exhibit such different tendencies. Globally, both websites use hierarchical structures to organize information. However, the hierarchy on Twitter is much shallower and narrower than that of Sina Weibo. In fact, Sina Weibo's hierarchies tend to be vast and very deep.

At the same time, rather than using a deep hierarchical structure, Twitter organizes information in linear structures, i.e., streams, and heavily relies on the database model to organize its content. Such organization supports content customization and, coupled with the use of search and tagging (*hashtags* and *usernames*), makes it easy for users to find information, especially when the amount of information on the website is almost infinitely vast.

The stream structure is also used in Sina Weibo's content organization. However, Sina Weibo is not as "pure" a database model devotee as Twitter. Much of the content on Sina Weibo is organized in hierarchies, as often seen on traditional informational websites. These hierarchies, with very specific classification of information, create segmented spaces where information is presented, thus forcing users to navigate to different spaces to look for information.

7.1.2.2 Simplicity vs. complexity

A simple and minimalist style of design is central to Twitter. This simplicity is a principle reflected in all the aspects of Twitter's design that I have discussed in the previous chapters, from the design of the network to IA, and from page design to the design of tools for publishing and moving content. Users are not required to understand a complex logic that underlies the design or choose from a long list of options when they accomplish tasks. The simple visual design with minimum graphics is of informational function rather than ornamentation. Such design shows its goal to create a simple yet versatile platform that meets users' needs that center on communicating information.

Sina Weibo's design, on the other hand, is more complex in all these aspects. The users are frequently expected to understand the logic of the design, such as categories, and the

complicated policies such as what the numerous user statuses mean and entail in practice. They are required to understand and choose from numerous options and tools when they attempt to accomplish a task. Rather than focusing on users' basic needs for fast and far-reaching communication, the website seems to strive to do it all with its vast number of tools and features—as a microblogging site, a cloud storage service, an online community, and a multimedia service, all in one, with affordances for communication, entertainment, networking, and even cloud file storage and transmission. Consequently, the website is much larger than Twitter in scope, and while more functions and features are available to users, users' experience using the core function that Twitter focuses on is likely to be weakened compared to Twitter.

It needs to be pointed out that a complex design does not necessarily entail versatility. Twitter's simple interface design Web 2.0 design pattern of "Twitter's strength, from the very onset, were its versatility as a tool and its brand autonomy as a ubiquitous service" (van Dijck, 2011, p. 335).

7.1.2.3 Standardization vs. specification

Here "standardization" refers to the one-size-fits-all approach to the design elements within the website.³ Standardization is a running theme throughout Twitter's design, from user accounts, page layout, to tools designed for publishing and moving content. Standardization is a way to simplify the design of the UI to improve usability. Standardization reflects the design pattern of Web 2.0, which prioritizes data and downplays the complexity of UI. The

³ Standardization in the content of web design usually refers to the practice in web design that comply with web standards and specifications to achieve better accessibility, interoperability, and usability interacting with other websites, applications, or tools on the web. This aspect of design is outside the scope of this dissertation.

standardized, or one-size-fits-all design, thus, increases the versatility of the website, and also makes the IU more transparent, allowing the users focus on no data. For instance, the text-based publishing features on Twitter afford the publishing of all types of media and content hosted in other locations on the web by utilizing links. Except for photos, Twitter does not host media content, but via links, Twitter's one-size-fits-all design affords users to publish any type of media objects that can be hosted on the web.

Unlike Twitter, Sina Weibo's design is very specified. For instance, it offers different types of user accounts, which come with different page design and privileges. Sina Weibo has different search engines specific to content and user status. Perhaps the most distinct difference between the two websites in this aspect is their features for publishing and moving content. Unlike Twitter, Sina Weibo offers users publishing features specific to a large number of types of media and content, and multiple features are designed to publish each type of content. Such specification, although seemingly provides users more options, can be unnecessary and sometimes cause confusion. An example is that overlapping functions of the *comment* and the *share* features on Sina Weibo.

7.1.2.4 Consistency vs. inconsistency

Consistency is another design pattern of Twitter. Its navigation, page layout, and style are consistent throughout the website. Sina Weibo, however, has very inconsistent navigation, page layout, and style. It seems that Sina Weibo is compelled to offer users fresh visual experience at the expense of consistency. Although the consistent design might appear to be "boring" to some users, the inconsistent design has many more downfalls. It makes the UI

opaque and intrusive, and can obstruct users' cognitive process when navigating the website and cause confusion or error.

7.1.2.5 *User vs. system*

When a user interacts with an interface, they form a relationship with the system. Twitter's design, the system is more invisible and equal than that of Sina Weibo's. In other words, Twitter's design is more user-centered, while Sina Weibo's is more system-centered. To use an analogy, the Twitter is like the customer service, but Sina Weibo is more like an authority. The impulse of the first is to serve, and that of the latter is to control.

For instances, the simple and consistent design of Twitter allows users to spend minimum cognitive energy in understanding the "mind" behind the UI. The open-ended information input features such as *profile* information input, composing tweet, or search, are intuitive and give users freedom in what information they input. Twitter does promote *tweets* and users in users' *timelines*, Tends list, and Who to follow list, but promoted tweets and users are Twitter's only advertising and promotional efforts. No other advertisement or promotion is present on the website.

In contrast, Sina Weibo's design is complex and sometimes inconsistent, and requires more cognitive energy from the users when they use the website. The information input features on Sina Weibo often use drop-down lists for users to choose from or designate fields for particular types of information, such as in user profile information input and advanced search. These highly structured input features limit users' options of input. In addition, Sina Weibo is more aggressive in promoting content via DMs, and *timelines*, and posting tools with built-in external content search engine, such as the posting tools for music and videos.

Perhaps more importantly, while Twitter leaves users to form their own network and communities and interact with each other, Sina Weibo seems to always attempt to “manage” everything from the network and communities to discussions and interactions. If we revisiting the user networks of the two websites, Twitter’s network is constructed through users’ activities and their social statuses that they have carried to the network through these activities and, mostly, content. However, on Sina Weibo, the system built structural hierarchies that users have to conform to. The website has to approve officially—in the case of verified users, actual government issued official documents are required—for users to have these statuses. While Twitter’s role in organizing and monitoring the user network is implicit and relatively less intrusive, Sina Weibo seems to position itself as an authority and communicate with the users through the design in ways that are more authoritative and intrusive than Twitter.

As mentioned earlier, ironically, Twitter’s “organic” user network strongly reinforces the existing status quo in the broader society. The seemingly equal status for users on Twitter does not necessarily lead to equal power (in fact, most certainly, it does not). As in offline social settings, where the voices of some members—opinion leaders, authorities, people in powerful positions, etc.—are louder than others, Twitter users’ power to be heard and acknowledged in the network vary, forming a hierarchy of users, although not structurally, where information flow is unbalanced (Nguyen & Zheng, 2013). Sina Weibo’s more deliberate organization of the user network, on the other hand, offsets the hegemonizing effects of the existing social order to a certain extent. Any user can acquire a higher status on Sina Weibo if they comply with the website’s rules and make a contract with the website by requesting user verification, purchasing VIP membership, or engaging in activities the website promotes. However, such

user statuses do not translate into the real influence in the user network on the website or in society at large precisely because they are not “earned” by the users through meaningful engagement with other users, but procedurally approved by the “authority.” Consequently, the badges and “V” symbols on Sina Weibo have much less prestige among users than the “verified” blue check on Twitter.

This leads to another difference between the two websites that relates to their relationship with the users. Twitter’s design suggests that the website values its relationship with the users, but also values, equally if not more, users’ experience and the relationships built among users, which are not necessarily personal relationships, but relationships in the context of Twitter. The design of Sina Weibo, on the other hand, suggests that the website prioritizes its relationship with the users, but not so much those among the users.

Twitter’s priorities in the speed of information flow, user interaction, and customization suggest its priority is to provide easy to use platform for users to communicate efficiently and effectively. The single most important goal is information sharing, and the user is positioned in the center of it all.

The priority of Sina Weibo, however, seems to be to keep users on the website, or within the services provided by Sina.com. The website is designed to be sticky, by offering various services and tools to do different things on the website, many of which do not optimize but obstruct information flow on the platform. Users are awarded higher level of status by simply logging in and spending long periods of time on the website, rather than contributing content that other users find valuable, which means that the Sina Weibo values the relationship between the users and the website more than the relationship among themselves.

7.2 Conclusion and discussion

The results of this comparative study suggest that as microblogging SNS is transferred from the United States to China, its identity has been renegotiated and redefined. The differences between the designs of Twitter and Sina Weibo suggest that although Sina Weibo, a microblogging site design in China is modeled on the design of Twitter, a microblogging site created in the United States, the two “microblogging sites” differ in many significant ways, both in terms of the social functions assigned to them, by the creators and users, and the forms that support these functions.

Twitter and Sina Weibo have different biases towards the mode of communication their users engage in on their platforms. Twitter is biased towards a type of communication that is public, impersonal, fast, content-based, and individual-centered communication. Sina Weibo, on the other hand, is biased towards a mode of communication that is more private, personal, context-aware, relationship-oriented, and communal. Of course, these modes of communication are not exclusive to one SNS or the other, as SNSs are hybrids of media before them. Nevertheless, these biases suggest subtle yet significant shift in the identities of Twitter and Sina Weibo as microblogging sites.

It needs to be noted that these biases are not necessarily exclusive to the cultures where the microblogging sites are designed, namely the United States and China. Another major SNS created in the United States, the same as Twitter, has been noted to have these similar biases as Sina Weibo’s regarding the modes of communication it supports. Many have noted that Facebook is more personal and relationship-oriented than Twitter. For instance, D. J. Hughes, M. Rowe, M. Batey and A. Lee (2012) have noted such difference between Twitter and

Facebook: “Twitter, unlike Facebook[,], offers greater user anonymity and focuses less on ‘who you are’ and your extant social circles and more on what you think and with to say” (Hughes et al., 2012) (p. 567). In other words, the removal of identities carried by users in personal relationships created a public space on Twitter than the more intimate space on Facebook.

Another author, Tagtmeier (2010), has observed:

Twitter has been likened to a giant party where you know no one but wish to make many friends. In contrast, Facebook would be a wedding reception filled with family and friends. [. . .] Privacy seems paramount to the users of Facebook, but Twitter users tend to embrace the feeling that everything is public. (p. 8)

Perhaps the similar could have been said about Sina Weibo. However, the different biases between Twitter and Sina Weibo, rather than suggesting that mass communication preferred in the United States and interpersonal communication in China, suggest that when microblogging, represented by Twitter, a highly public and open SNS, is localized in China, it is compelled to adjust the IU design, i.e., its form, to accommodate the social functions that Chinese users expect it to have—more options for personal, private, and exclusive interaction. In fact, it is perhaps safe to say that no such SNS exists in China that is as pure as Twitter when it comes to pushing for broadcast-like communication. In other words, Twitter is not likely to happen in China.

The other set of design patterns from the angle of the SNSs as websites suggest that Twitter’s design complies with usability standards and, especially, the design patterns of Web 2.0 better than that of Sina Weibo (Dilger, 2010; Nielsen & Loranger, 2006; Rollett et al., 2007).

Twitter's design uncouples the interface from data and fully utilizes data to provide value to users and make their experience highly personalized. The presentation of information is simplified to streams, and the interface is relieved from the heavy structure of content presentation, focusing, instead, on functions, which, through its simple "one-size-fits-all" tools, require low threshold of effort on the part of users.

Compared to Twitter, the design of Sina Weibo does not comply with usability standards or the patterns of Web 2.0 design very well. The design is cumbersome, inconsistent, and system-centered. Although its core design is based on data, the uncoupling of the UI and the data is not complete at all. The interface is still used to present information in complex structures, and its "do it all" design approach and its complex design of features defy what Dilger calls the "mental model" of "learning by doing" that is characteristic of Web 2.0 design (Dilger, 2010). The result is a less user-centered and usable SNS.

These "gaps" between the designs of the two SNSs surely have to do with the disparity between technological development in the United States and China, where these SNSs are designed. After all, the United States is still in the forefront of the global technology research and development. However, if we take cultured values seriously, the "gaps" themselves can be seen as, perhaps, symptoms of a Euro-American centric tendency in global technology development. When the cultural values of a people are incongruent with, or even in conflict with the values underlying usability standards and Web 2.0 design patterns such as, for instances, efficiency, immediacy, convenience, and clarity—say, joy, longitude, security, and ambiguity—perhaps the technology designed by and for this people will not always completely comply with those usability standards and Web 2.0 patterns, even at the expenses of some of

the benefits from this knowledge. These insights tell us, for technology researchers, communicators, and designers, it is crucial to recognize and reflect on the cultural biases usability standards and principles established and used in the United States when review and evaluate websites for users in other cultures.

7.2.1 Further thoughts: cultural values revisited

These implications about cultural values and their influence in how we judge the usability and design of SNSs lead us to revisit the cultural values operationalized using Hofstede's (2001) cultural dimension theory and Hall's (1989) cultural contexting theory. It is not a goal of this study to test this model, and I do not intend to make assumptions about the direct correlations between the biases reflected in the design patterns of the two websites and the cultural values. However, some of these biases do seem to correspond to these values, which does give us some food for thought for future research. Table 7-1 shows my suggestions of some of the possible connections between the biases of the two SNSs and the cultural values corresponding to their respective cultures.

Table 7-1 Cultural values and design biases

<i>Power Distance</i>	
American Culture (Low)	Chinese Culture (High)
Flat structure	Hierarchical structure
User-centered	System-centered
<i>Uncertainty Avoidance</i>	
American Culture (high)	Chinese Culture (low)

Open access and information out-flow	Controlled access and information out-flow
Indefinite audience	Definite audience
<i>Collectivism vs. Individualism</i>	
American Culture (Individual)	Chinese Culture (Collectivism)
Information-oriented	Relationship-oriented
Individual	Community
<i>Long-term vs. Short-term Orientation</i>	
American Culture (Short-term)	Chinese Culture (Long-term)
Information-oriented	Relationship-oriented
Prioritizing speed	Prioritizing context
<i>Communication Style</i>	
American Culture (Low-Context)	Chinese Culture (High-Context)
Prioritizing speed	Prioritizing context
Simplicity	Complexity
Standardization	Specification
Consistency	Inconsistence

These connections drawn from this study are suggestive rather than indicative, and needs to be further tested. Nevertheless, the operationalization of culture using cultural dimension theory and cultural contexting theory, perhaps inherently flawed and reductive as any method of operationalizing culture, therefore, may still serve as a point of departure for cross-cultural research in technology design.

7.2.2 *More further thoughts: some reflection on cultural experience*

Throughout Sina Weibo, we see an impulse to control that is not seen on Twitter, no matter such control comes from the website or from users afforded by the design, in this order. For instance, an impulse to control the dissemination of information is materialized in the Chinese SNS's bias towards a more private mode of communication. Such a shift in the identity of the microblogging site when it is localized in China seems to suggest a sort of anxiety in the culture associated with publishing or broadcasting to an indefinite audience. It is safe to assume that this anxiety, deeply rooted in the mistrust and uncertainty about the repercussions of speech, is a consequence of the Chinese government's control of media and censorship.

China's state control of media and censorship has been well documented (Lorentzen, 2014). Take the publishing industry for example, private publishing houses in China are in operation in both print and ebook business, but they do not have the rights to "publish," which is essentially a process of government sanction, which "is tied to national policies and governmental principles, and that is beyond private enterprises' control" (Feng & Ren, 2011, p. S11). The rise of the web has empowered Chinese to publish themselves without official sanction that is required for traditional media, but the state control is by no means weakened (Saleem, 2012; Sammarco, 2013). For Chinese SNS users, the anxiety from the possibility of being censored online leaves them two options, self-censorship and audience control. Therefore, the ability to control dissemination of information from the sources seems to be a crucial social function of any SNS.

However, this anxiety goes deeper in the culture than the Chinese's immediate media experience of the communist regime's censorship. Unlike the United States, China does not

have a deeply rooted liberal tradition in its culture or the true experience of the Habermasian public sphere. This is certainly true during the communist rule, but it had been true in its imperial and Nationalist past as well. More than two thousand years of centralized political rule has never given Chinese the confidence in freedom of speech, since knowledge and communication have always been among the most controlled areas in China's social life. The scales of top-down movements of censorship and persecution of intellectuals, such as the first emperor of a centralized China, Qin Shi Huang's *fenshukengru*, "burning of books and burying of scholars," in 213-210 B.C. and the *wenziyu*, "imprisonment for writing," in the Ming and Qing Dynasty, were no less than that of the Cultural Revolution in the communist era. In addition, those couple of short eras in the modern and contemporary history of China when freedom of speech was both advocated theoretically and practiced to a certain extent, such as the New Culture Movement in the early 20th century, and the 1980s before the Tiananmen protest in 1989, either faded away because of the lack of support in the culture or ended up in bloody crackdown by the authoritarian regime. Perhaps the only era in the Chinese imagination that allowed freedom of speech was the Spring and Autumn period and the Warring States period from the eighth century B.C. through the third century B.C. However, ironically, the most significant and far-reaching legacy of that era was Confucianism, an ideology instrumental for the central imperial authorities to control the population, including, if not especially, speech (for Confucianism had been the single ideology of canonical status in the rule classes since the Han Dynasty). These experiences, across over thousands of years, perhaps have greater impact on an anxiety associated with speech, an anxiety that feeds a culture of self-censorship and secrecy.

Interestingly, the UI designs of the websites seem to mirror the political experience in the two cultures as well. Twitter's simple, standardized, and consistent UI design, coupled with its high-degree user autonomy, reflects the political system of the constitutional republic that is the United States and the historical political traditions this political system has grown out of. Sina Weibo's complex, context specific, and inconsistent IU design, coupled with the SNS's micro-management of the user network, seems to reflect China's political reality—contemporary and historical—of the authoritarian rule that lack accountability, transparency, and consistency. The conceptual mapping in the UI thus reflects not only the physical and logical system of a technological artifact, but also the broader offline sociopolitical system where the technological artifact is embedded.

7.3 Limitations and future research

This study, which has been a great pleasure, has a number of limitations. First of all, because of the lack of research in cross-cultural SNS IU design, this has been an exploratory study, and no heuristic is available for this analysis. My system of analysis, not without flaw, needs to be tested and improved in future research that analyzes SNS UI design. Further, because of the limited scope of this dissertation, only two SNSs from two cultures are compared. Future research needs to include more samples of the SNSs and more cultures. Finally, this study does not trace the historical development of the two SNSs. However, as SNSs are perpetually updating and changing their design, tracing the historical development of SNSs may shed more insight in the movement of technology across cultures.

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